

FILE 'CAPLUS' ENTERED AT 13:30:17 ON 20 MAY 2002

L1 88344 S LAMINATE
L2 279420 S WALL
L3 523 S (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LA
L4 18089 S CELLULOSE(L) LAYER
L5 463 S (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LA
L6 35508 S (POLYOLEFIN OR POLYESTER) (L) LAYER
L7 0 S L2 AND L3 AND L4
L8 1772 S L1 AND L2
L9 3 S L8 AND L3
L10 25 S L8 AND L4
L11 187 S L8 AND L6
L12 4 S L10 AND L11
L13 130 S L11 AND PY<=1997

=> s l2 and l3 and l5

L14 0 L2 AND L3 AND L5

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	58.16	58.37

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-4.34	-4.34

STN INTERNATIONAL LOGOFF AT 13:39:56 ON 20 MAY 2002

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 09:02:31 ON 21 MAY 2002

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FILE COVERS 1907 - 21 May 2002 VOL 136 ISS 21

FILE LAST UPDATED: 19 May 2002 (20020519/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s laminat? or layer?

145680 LAMINAT?
 1201912 LAYER?
 L1 1281429 LAMINAT? OR LAYER?

 => s foam? or polyurethane? or polystyrene?
 115818 FOAM?
 108670 POLYURETHANE?
 117894 POLYSTYRENE?
 L2 305777 FOAM? OR POLYURETHANE? OR POLYSTYRENE?

 => s woven or non-woven or unwoven
 17237 WOVEN
 74 WOVENS
 17289 WOVEN
 (WOVEN OR WOVENS)
 535364 NON
 30 NONS
 535388 NON
 (NON OR NONS)
 17237 WOVEN
 74 WOVENS
 17289 WOVEN
 (WOVEN OR WOVENS)
 1772 NON-WOVEN
 (NON (W) WOVEN)
 937 UNWOVEN
 L3 18130 WOVEN OR NON-WOVEN OR UNWOVEN

 => s fiberglass or fibreglass or fiber-glass or fibre-glass
 2727 FIBERGLASS
 5 FIBERGLASSES
 2728 FIBERGLASS
 (FIBERGLASS OR FIBERGLASSES)
 7 FIBREGLASS
 414404 FIBER
 437241 FIBERS
 569195 FIBER
 (FIBER OR FIBERS)
 575144 GLASS
 106545 GLASSES
 599821 GLASS
 (GLASS OR GLASSES)
 6880 FIBER-GLASS
 (FIBER (W) GLASS)
 1812 FIBRE
 1300 FIBRES
 3001 FIBRE
 (FIBRE OR FIBRES)
 575144 GLASS
 106545 GLASSES
 599821 GLASS
 (GLASS OR GLASSES)
 2 FIBRE-GLASS
 (FIBRE (W) GLASS)
 L4 9227 FIBERGLASS OR FIBREGLASS OR FIBER-GLASS OR FIBRE-GLASS

 => s cellulos? or resin?
 304396 CELLULOS?
 607665 RESIN?
 L5 888574 CELLULOS? OR RESIN?

 => s l1 and l2 and l3 and l4 and l5
 L6 9 L1 AND L2 AND L3 AND L4 AND L5

=> d scan

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS
IC B32B; B41K
NCL 161093000
CC 37 (Plastics Fabrication and Uses)
TI Impact-resistant **laminated** sheet
ST epoxy **resin polyurethane laminates**; plastic
lamine bulletproof; polyester **polyurethanes**
laminates; impact strength **laminates**
IT Projectiles
(ballistic, impact-resistant plastic **laminates** for)
IT Urethane polymers, uses and miscellaneous
RL: TEM (Technical or engineered material use); USES (Uses)
(cellular, **laminates** with epoxy **resins** reinforced
with glass fabric, impact-resistant)
IT **Fiber, glass**, uses and miscellaneous
RL: USES (Uses)
(fabric, plastics reinforced with, impact-resistant)
IT **Resins**, epoxy, uses and miscellaneous
RL: USES (Uses)
(**laminates**, with urethane polymers reinforced with glass
fabric)
IT Polyesters, uses and miscellaneous
RL: USES (Uses)
(**laminates**, with urethane polymers reinforced with glass
fabric, impact-resistant)
IT 9003-18-3, uses and miscellaneous
RL: USES (Uses)
(epoxy **resin**-urethane polymer **laminates** contg.,
reinforced with glass fabric)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS
CC 31 (Synthetic Resins and Plastics)
TI **Laminated** denture

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS
IC B32B; C01B; F16N
CC 39 (Textiles)
TI Deposition of carbon fibers perpendicular to the surface of fabrics and
films
ST carbon fibers deposition; fibers carbon deposition
IT Nylon, uses and miscellaneous
RL: USES (Uses)
(carbon fiber perpendicular deposition on fabrics of 6)
IT Plastics
RL: USES (Uses)
(carbon fiber perpendicular deposition on sheets of)
IT Fiber, synthetic
RL: USES (Uses)
(carbon, perpendicular deposition of, on sheet materials)
IT **Fiber, glass**, uses and miscellaneous
RL: USES (Uses)
(fabric, carbon fiber perpendicular deposition on)
IT Adhesives, uses and miscellaneous
(for carbon fiber perpendicular deposition on sheet materials)
IT 7440-44-0, uses and miscellaneous
RL: USES (Uses)
(fiber, perpendicular deposition of, on sheet materials)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS

IC ICM E04H015-54

ICS B32B015-08; B32B033-00; E04B001-74; D06M011-83

CC 58-6 (Cement, Concrete, and Related Building Materials)

Section cross-reference(s): 38

TI Sound-insulating polymer-coated fabric in control of interior environments

ST composite polymer glass fiber fabric sound thermal insulator

IT Glass fibers, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(ECG150 4/2, fabric; sound-insulating polymer-coated fabric in control of interior environments)

IT Polysiloxanes, uses

RL: MOA (Modifier or additive use); USES (Uses)

(Me Ph, ET-4327, from Dow Corning; sound-insulating polymer-coated fabric in control of interior environments)

IT Membranes, nonbiological

(composite, polymer-coated fabric; sound-insulating polymer-coated fabric in control of interior environments)

IT Yarns

(defining an open area of .apprx.30-50%; sound-insulating polymer-coated fabric in control of interior environments)

IT **Polyurethanes**, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(elastomeric fiber; sound-insulating polymer-coated fabric in control of interior environments)

IT Carbon fibers, uses

Polyesters, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(fibrous material; sound-insulating polymer-coated fabric in control of interior environments)

IT Fluoropolymers, uses

RL: MOA (Modifier or additive use); USES (Uses)

(polymer deposition **layer**; sound-insulating polymer-coated fabric in control of interior environments)

IT Fluoropolymers, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(polymer deposition **layer**; sound-insulating polymer-coated fabric in control of interior environments)

IT Nonwoven fabrics

(polymer-coated; sound-insulating polymer-coated fabric in control of interior environments)

IT Glass fiber fabrics

RL: EPR (Engineering process); PEP (Physical, engineering or chemical process); PROC (Process)

(polymer-coated; sound-insulating polymer-coated fabric in control of interior environments)

IT Heat

(radiant, radiant heat control; sound-insulating polymer-coated fabric in control of interior environments)

IT Fluoropolymers, uses

RL: MOA (Modifier or additive use); USES (Uses)

(**resins**, polymer deposition **layer**; sound-insulating polymer-coated fabric in control of interior environments)

IT Thermal insulators

(sound-insulating, polymer-coated fabric; sound-insulating polymer-coated fabric in control of interior environments)

IT Sound insulators

(thermally insulating, polymer-coated fabric; sound-insulating polymer-coated fabric in control of interior environments)

IT 24938-60-1, Poly-(m-phenyleneisophthalamide) 24938-64-5,

Poly-(p-phenyleneterephthalamide)

RL: TEM (Technical or engineered material use); USES (Uses)

(fibrous material; sound-insulating polymer-coated fabric in control of interior environments)

IT 7429-90-5, Aluminum, uses 7439-92-1, Lead, uses 7439-98-7, Molybdenum, uses 7440-02-0, Nickel, uses 7440-06-4, Platinum, uses 7440-16-6, Rhodium, uses 7440-22-4, Silver, uses 7440-25-7, Tantalum, uses 7440-33-7, Tungsten, uses 7440-50-8, Copper, uses 7440-56-4, Germanium, uses 7440-57-5, Gold, uses 11121-90-7, Carbon steel, uses 12597-68-1, Stainless steel, uses 12597-71-6D, Brass, chrome brass, uses 12606-02-9, Inconel 50926-11-9, Indium tin oxide

RL: MOA (Modifier or additive use); USES (Uses)

(low emissivity **layer**; sound-insulating polymer-coated fabric in control of interior environments)

IT 9002-83-9, Polychlorotrifluoroethylene 9002-86-2, Polyvinyl chloride 9002-89-5, Polyvinyl alcohol 13269-86-8D, ether 24937-79-9, Polyvinylidene fluoride 24981-14-4, Polyvinyl fluoride 25038-71-5 25067-11-2 25101-45-5 381213-52-1, Teflon FEP-T 121A

RL: MOA (Modifier or additive use); USES (Uses)

(polymer deposition **layer**; sound-insulating polymer-coated fabric in control of interior environments)

IT 9002-84-0, Fluon AD 1H

RL: TEM (Technical or engineered material use); USES (Uses)

(polymer deposition **layer**; sound-insulating polymer-coated fabric in control of interior environments)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS

IC B32B; C09J

NCL 156155000

CC 37 (Plastics Fabrication and Uses)

TI Reinforced **resin** panel using a soluble cover sheet

ST reinforced **resin** panels; structural **laminated** panels; **laminated** structural panels; thermal insulation panels

IT **Fiber, glass**, uses and miscellaneous

RL: USES (Uses)

(fabric, thermally insulating **laminated** building panels contg., sol. cover sheet in manuf. of)

IT Thermal insulators

(**laminated** plastic building panels, sol. cover sheet in manuf. of)

IT Building materials

(**laminated** plastic panels, sol. cover sheet in manuf. of)

IT Plastics, **laminated**

RL: USES (Uses)

(thermally insulating building panels, **resin**-sol. cover sheet in manuf. of)

IT Polyesters, uses and miscellaneous

RL: USES (Uses)

(thermally insulating **laminated** building panels contg., sol. cover sheet in manuf. of)

IT 9003-53-6, uses and miscellaneous

RL: USES (Uses)

(thermally insulating **laminated** building panels contg., sol. cover sheet in manuf. of)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS

CC 37-3 (Plastics Fabrication and Uses)

TI Development of fire-resistant, low smoke generating, thermally stable end items for commercial aircraft and spacecraft using a basic polyimide **resin**

ST polyimide **foam** fire resistance; aircraft seating polyimide **foam**; spacecraft upholstery polyimide **foam**; glass fiber

polyimide **foam laminate**; microwave heating
foaming polyimide; ceramic fiber fireproofing polyimide

IT Upholstery
 (cellular polyimides contg. ceramic fibers, fire-resistant, for air- and spacecraft seating)

IT Polyimides, uses and miscellaneous
 RL: TEM (Technical or engineered material use); USES (Uses)
 (cellular, contg. ceramic **fibers, glass** fiber-reinforced **laminates**, for fire-resistant air- and spacecraft seating)

IT Fireproofing agents
 (ceramic fibers, for polyimide **foam** for air- and spacecraft seating)

IT Microwave, chemical and physical effects
 (heating by, in **foaming** of polyimides)

IT Molding of plastics and rubbers
 (of polyimide **foams** contg. ceramic fibers, for air- and space-craft seating)

IT Glass fibers, uses and miscellaneous
 RL: USES (Uses)
 (polyimide **foams** reinforced by, fire-resistant, for air- and spacecraft seating)

IT Aircraft
 Space vehicles
 (seating for, fire-resistant polyimide **foam** for)

IT Smoke
 (suppression of, in polyimide **foam** seating for aircraft)

IT Fire-resistant materials
 (fibers, cellular polyimides contg. ceramic, for air and spacecraft seating)

IT Ceramic materials and wares
 RL: USES (Uses)
 (fibers, polyimide **foams** contg., fire-resistant, for air-and spacecraft seating)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS
 IC B29C; B32B
 NCL 161093000
 CC 36 (Plastics Manufacture and Processing)
 TI Glass-fiber-reinforced **polystyrene**
 ST **polystyrene** glass fiber reinforced; glass fiber reinforced
polystyrene; laminates flexural strength; flexural strength **laminates**

IT **Fiber, glass**, uses and miscellaneous
 RL: USES (Uses)
 (fabric, styrene polymers reinforced by siloxane-treated)

IT Siloxanes, uses and miscellaneous
 RL: USES (Uses)
 (glass fabric treated with, styrene polymers reinforced by)

IT 1067-53-4 2530-83-8 2530-85-0 3388-04-3
 RL: USES (Uses)
 (glass fabric treated with, styrene polymers reinforced by)

IT 9003-53-6, uses and miscellaneous
 RL: USES (Uses)
 (reinforced by glass fabric treated with siloxanes)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> d 1-9 bib,abs

L6 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS
 AN 2001:924073 CAPLUS

DN 136:57761
 TI Sound-insulating polymer-coated fabric in control of interior environments
 IN Sahlin, Katherine M.; Effenberger, John A.
 PA Saint-Gobain Performance Plastics Corporation, USA
 SO PCT Int. Appl., 32 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001096695	A1	20011220	WO 2001-US40989	20010614
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2000-211882P P 20000615

AB The flexible composite membrane for sound insulation, light transmission and radiant heat control. The composite membrane comprises a flexible fibrous reinforcement **layer**, a polymer deposition **layer** covering the reinforcement **layer**, and a low emissivity **layer** adhered to the polymer deposition **layer**. The reinforcement **layer** comprises a fibrous material having yarns defining an open area of .apprx.30-50%. The flexible reinforcement **layer** comprises a material selected from poly-(m-phenyleneisophthalamide), poly-(p-phenyleneterephthalamide), **polyurethane** elastomeric fiber, polyalkylene, polyamide, polyester, glass fiber, carbon fiber, and a blend thereof. The flexible reinforcement **layer** may comprise a fabric of **woven fiberglass**, a nonwoven fabric, a perforated film, or a multiple strata. The polymer deposition **layer** 10-50 .mu.m thick comprises a fluoropolymer selected from polytetrafluoroethylene (PTFE), fluorinated ethylene propylene copolymer (FEP), perfluoroalkoxy **resin** (PFA), polyperfluorovinyl ether, polychlorotrifluoroethylene (CTFE), polyvinylidene fluoride (VF2), polyethylenchlorotrifluoroethylene (ECTFE), polyethylenetetrafluoroethylene (ETFE), polyvinyl fluoride (PVF), and blends thereof. The polymer deposition **layer** comprises a polymer selected from polyvinyl chloride (PVC), polyvinyl alc. (PVA) and blends thereof. The low emissivity **layer** comprises a low emissivity material selected from Al, Au, indium tin oxide, chrome brass, mild steel, stainless steel, Inconel, Cu, Ni, Pb, Pt, Ag, Ta, W, Ge, Mo, Rh, and alloys thereof.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS
 AN 1980:569262 CAPLUS
 DN 93:169262
 TI Development of fire-resistant, low smoke generating, thermally stable end items for commercial aircraft and spacecraft using a basic polyimide **resin**
 AU Gagliani, J.; Lee, R.; Sorathia, U. A. K.; Wilcoxson, A. L.
 CS Sol. Turbines Int., San Diego, CA, USA
 SO NASA [Contract. Rep.] CR (1980), NASA-CR-160576, SR79-R-4674-38, 176 pp.
 Avail.: NTIS
 From: Sci. Tech. Aerosp. Rep. 1980, 18(13), Abstr. No. N80-22492
 CODEN: NSCRAQ; ISSN: 0565-7059
 DT Report
 LA English

AB A terpolyimide precursor **foamable** by microwave methods was developed and gave **foams** possessing superior seating properties. A continuous process, based on spray-drying techniques, permitted prodn. of polyimide powder precursors in large quantities. The constrained-rise **foaming** process permitted fabrication of rigid **foam** panels with improved mech. properties and almost unlimited d. characteristics. Polyimide **foam** core rigid panels were produced by the technique with **woven** glass fiber fabric bonded to each side of the panel in a 1-step microwave process. The fire resistance of polyimide **foams** was improved by addn. of ceramic fibers to the powder precursors. **Foams** produced from the compns. were flexible, possessed good acoustical attenuation, and met the min. burnthrough requirements when impinged by high flux flame sources.

L6 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS

AN 1971:127025 CAPLUS

DN 74:127025

TI Improved **foamed-core laminates**

PA Larson Industries Inc.

SO Brit., 6 pp.

CODEN: BRXXAA

DT Patent

LA English

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	GB 1221267		19710203		
PRAI	US		19680520		

AB The inner reinforced polyester skin or shell of **foam-core laminates** which are used in the manuf. of boats was firmly bonded to the core by applying a thin coating of polyester **resin** over the **foam** before hardening. A polyester gel was applied to the inner surface of a hull mold, a **layer** of glass reinforced polyester was applied over the gel, a **woven fiberglass** mat, satd. with a polyester **resin** was applied over the previous **layer**, 4 successive **layers** of **polyurethane foam** were applied by spraying, a thin **layer** of polyester **resin** was applied over the last **layer** of **polyurethane**, the composite allowed to harden, a **layer** of nonwoven glass fibers satd. with polyesters applied, the composite aged at room temp., and the hull was converted by conventional methods to a boat with good performance characteristics.

L6 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS

AN 1971:127012 CAPLUS

DN 74:127012

TI Impact-resistant **laminated** sheet

IN Windecker, Leo J.

PA Dow Chemical Co.

SO U.S., 3 pp.

CODEN: USXXAM

DT Patent

LA English

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	US 3567568	A	19710302	US 1967-671791	19670929

AB Impact resistant **laminates** are prepd. by impregnating **woven** glass cloth with a **resin**, i.e. a bisphenol A-epichlorohydrin epoxy or polyester **resin**, curing the **resin**, and then bonding the **resin-glass** cloth composites to **polyurethane foam** which had been impregnated with an epoxy **resin** and acrylonitrile-butadiene copolymer mixt. A 5-**layer** sandwich having outer **layers** and a central

layer of glass fiber-reinforced epoxy **resin** and 2 intermediate **layers** of the epoxy-rubber-impregnated **polyurethane foam** had, after curing for 48 hr at 125.degree., good impact resistance and effectively stopped ballistic projectiles without significant damage to the sheet.

L6 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS

AN 1970:122805 CAPLUS

DN 72:122805

TI Deposition of carbon fibers perpendicular to the surface of fabrics and films

PA Courtaulds Ltd.

SO Fr. Demande, 7 pp.

CODEN: FRXXBL

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2002722		19691031		
PRAI	GB		19680227		

AB Carbon filaments are made by pyrolyzing org. filaments (e.g. polyacrylonitrile) at 200-300.degree. in an oxidizing atm., then at > 1000.degree. (or > 2000.degree. to obtain a graphitized product) in an inert atm. They are then cut into uniform short lengths (0.5-5 mm) and are deposited on a substrate by high-voltage electrostatic deposition so as to be perp endicular to the substrate surface; a binder retains them in position. The substrate may be a **woven** or knitted fabric (glass fiber, cotton, nylon, polyester, polyacrylonitrile, viscose) or a polymer film. The binder may be an adhesive (a **polyurethane** or a dispersion of one or more polyacrylic esters) or a thermally hardenable **resin** coating on the substrate. Either substrate or binder coating may be elec. conducting to confer antistatic properties, while the carbon fibers confer self-lubrication and mech. resistance. Thus, a glass fiber or nylon 6 fabric is coated with a thin **layer** of adhesive (Primal K 14, C. Lennig), and coated with perpendicularly oriented 2.5-mm carbon fibers by electrostatic deposition. After deposition of sufficient carbon, the adhesive is dried.

L6 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS

AN 1970:44701 CAPLUS

DN 72:44701

TI Reinforced **resin** panel using a soluble cover sheet

IN Morse, Donald B.; Menzer, Alfred B.

PA Kemlite Corp.

SO U.S., 7 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3480497	A	19691125	US 1967-626270	19670327

AB **Laminates** are prepd. by impregnating a fibrous sheet with a thermosetting **resin**, and placing a protective, **resin** -sol. film over the impregnated shee t, then passing the article between rolls before the film dissolves in the **resin**, optionally pressing it to the surface of another body, and curing the article. Thus, face sheets were formed by passing 2 plys of glass fabric through a bath contg. an acrylic **resin**, a catalyst, and 5% TiO2. The squeeze roll setting was 0.045 in., and the sheets were cut and placed in the halves of a mold; a rigid **polyurethane foam** core (d. 2.5 lb/ft3, 3 in. thick) was placed on top of 1 sheet. The second face sheet was placed on the male part of the mold, and clamped to it along the

edges, and that mold part was inverted and placed on top of the core and 3 in. times 1 in. rectangular polyester **resin**-glass cloth tubes formed the end closures. The hinged side rails of the mold were raised to contact the bottom sheet, core, and upper sheet edges, to a thickness of .apprx. 1/8 in.; the composite was then molded at 40 lb/ft² and 140.degree.F for 2 hr. The flange was trimmed to within 1/4 in. of the face. The panel, 4 ft wide times 8 ft long, had insulating properties and structural strength suitable for wall or ceiling refrigeration panels. By the same process a glass fiber mat was impregnated with a 3:1:1 polyester **resin**-styrene-Me methacrylate mixt., contacted with a regenerated **cellulose** film, squeezed, cut into sheets, between which a honeycombed kraft paper, 15% satd. with a phenolic **resin**, and cured to be stiff and moisture resistant was pressed, using Al channel end closures, at 150-250.degree.F for 30-90 min, to give a structurally strong panel. A panel used for decking or facing concrete formwork was made from a **woven** glass fiber roving, impregnated with a 5:4:1 epoxy **resin**-amine hardener-styrene oxide mixt., top sheets of which were covered with **polystyrene** and the bottom with Mylar, and bonded to a chipboard core through thermal press curing; a sheet similar to the original was placed over the surface of a corrugated sheet iron with the tacky side next to the iron, and the regenerated **cellulose** on the top side, then pressed towards the corrugated iron to get a firm uniform contact, and cured. After curing, the regenerated **cellulose** film was removed, leaving a durable attractive finish.

L6 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS

AN 1969:413797 CAPLUS

DN 71:13797

TI Glass-fiber-reinforced **polystyrene**

IN Sterman, Samuel; Marsden, James G.

PA Union Carbide Corp.

SO U.S., 3 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3441466	A	19690429	US 1966-523879	19660201
	AT 278467	B	19700210	AT 1967-860	19670130
PRAI	US 1966-523879		19660201		

AB Glass cloth is treated with organofunctional alkyltrialkoxysilanes or their hydrolyzates (silicones), and impregnated with **polystyrene** (I) to give glass-reinforced I materials that have greater flexural strength than those prepd. from untreated glass. For example, .gamma.-methacryloyloxypropyl(trimethoxy)silane in water (adjusted to pH 3.5-5 with AcOH) was stirred until hydrolysis was complete. **Woven** glass fabric was passed through the soln. (50 wt. % pickup), dried at room temp., cured at 135.degree. for 2.5 min. (0.5% wt. gain), and impregnated with a soln. of 25 wt. % I in toluene. The impregnated fabric was dried at room temp., heated 1.5 hrs. at 135.degree., and 11 plies of the resulting 4:1 **resin**-glass composite were pressed together 20 min. at 177.degree. to give a **lamine** 0.125 in. thick, 40 wt. % **resin**, flexural strength 48,400 psi. A similar **lamine** prepd. from glass cloth treated with .beta.-(3,4-epoxycyclohexyl)ethyl(trimethoxy)silane had flexural strength 48,800 psi. Similar **laminates** prepd. from untreated fibers and fibers treated with .gamma.-glycidoxypropyl(trimethoxy)silane and vinyltris(.beta.-methoxyethoxy)silane, had flexural strengths 24,400, 28,600, and 27,500 psi., resp.

L6 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS

AN 1966:76507 CAPLUS

DN 64:76507
OREF 64:14371g-h
TI Epoxy **resin** compositions
IN Holm, Roy T.; Williams, Paul H.
PA Shell Oil Co.
SO 7 pp.; Continuation-in-part of U.S. 3,116,301 (CA 60, 10653c)
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 3232901		19660201	US	19620604
AB	<p>The title resins have low viscosity and thus are easily processed. They are made from a poly-epoxide with >1 vic-epoxy group and a compd. contg. .ltoreq.1 ethylenic group and .ltoreq.1 oxirane, thiirane, or aziridine group, e.g. glycidyl 3,4-dihydro-1,2-pyran-2-carboxylate (I) or 3,4-dihydro-1,2-pyran-2-methyl glycidyl ether, whose manuf. is described in U.S. 3,116,301 (loc. cit.). Thus, 28 parts I was mixed with 72 parts glycidyl polyether of 2,2-bis(4-hydroxyphenyl)propane and 14.15 parts m-phenylenediamine was added. After 8 hrs., the viscosity had increased from 8 to 13 poises at 25.degree.. Cast sheets cured 2 hrs. at 100.degree. and 4 hrs. at 150.degree. had a tensile strength of 13,600 psi. and 4.93% elongation, heat-distortion temp. 156.degree., and Izod impact resistance of 0.51 ft.-lb./in. After 20 hrs. at 150.degree. the heat-distortion temp. was 182.degree.. These resins make excellent coating and potting compds., foams, adhesives, etc., and impregnate woven or felted fiber glass sheets to yield laminates of high temp. and H2O resistance.</p>				

L6 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS
AN 1947:24819 CAPLUS
DN 41:24819
OREF 41:4965g-i,4966a
TI **Laminated** denture
IN Harris, La Mar W.; Colton, Lloyd W.
DT Patent
LA Unavailable
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	US 2418833		19470415	US	
AB	<p>A laminated denture having improved resistance to water absorption and greater tensile strength and dimensional stability is prepd. by using polymethylmethacrylate (I) modified with styrene and reinforcing the polymer mass with fibrous material (II). Fiber glass cloth (III) is preferred for Class II, but other reinforcing materials, such as duck fabric or light wt. stainless alloys in either sheet or woven fabric form may be used. If III is used, it is first impregnated with 25-35% (vol.) of vinyl-butylal resin preferably modified with 17-70% of a phenol-HCHO resin to give a resinous mixt. which is thermosetting. The denture consists of a laminates of III impregnated as noted above, between a layer of methyl methacrylate (1 part monomer and 3-4 parts of polymer) on the exposed side, and a layer of 1 part of a 4/1 mixt. of monomeric styrene-monomeric methyl methacrylate, and 4 parts of powd. I on the tissue side. The laminates is cured in a suitable mold either by (1) heating at a rate of 2.degree. per min. to 210.degree.F. and holding at 212.degree.F. for 45 min. or (2) by preheating at 160.degree.F. for 3 hrs. and then heating at 212.degree.F. for 45 min. The cured laminates has a shear strength of 8450 lb. per sq. in. and an Izod impact strength of 5.49 ft. lb. per sq. in. notch as compared with polystyrene which has a shear strength of 6540 lb. per sq. in. and an Izod impact strength of 0.3-0.5 ft. lb. per sq. in. notch.</p>				

=> d his

(FILE 'HOME' ENTERED AT 09:01:54 ON 21 MAY 2002)

FILE 'CAPLUS' ENTERED AT 09:02:31 ON 21 MAY 2002

L1 1281429 S LAMINAT? OR LAYER?
L2 305777 S FOAM? OR POLYURETHANE? OR POLYSTYRENE?
L3 18130 S WOVEN OR NON-WOVEN OR UNWOVEN
L4 9227 S FIBERGLASS OR FIBREGLASS OR FIBER-GLASS OR FIBRE-GLASS
L5 888574 S CELLULOS? OR RESIN?
L6 9 S L1 AND L2 AND L3 AND L4 AND L5

=> s wind? or load?

102572 WIND?

271720 LOAD?

L7 371845 WIND? OR LOAD?

=> s l6 and l7

L8 0 L6 AND L7

=> s wall

211409 WALL

103522 WALLS

L9 279420 WALL
(WALL OR WALLS)

=> l9 and l7

L9 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> d his

(FILE 'HOME' ENTERED AT 09:01:54 ON 21 MAY 2002)

FILE 'CAPLUS' ENTERED AT 09:02:31 ON 21 MAY 2002

L1 1281429 S LAMINAT? OR LAYER?
L2 305777 S FOAM? OR POLYURETHANE? OR POLYSTYRENE?
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L5 888574 S CELLULOS? OR RESIN?
L6 9 S L1 AND L2 AND L3 AND L4 AND L5
L7 371845 S WIND? OR LOAD?
L8 0 S L6 AND L7
L9 279420 S WALL

=> s l7 and l9

L10 10365 L7 AND L9

=> s l10 and l6

L11 0 L10 AND L6

=> s l10 and l2 and l3 and l4 and l5

L12 0 L10 AND L2 AND L3 AND L4 AND L5

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

65.82

66.03

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

=> log y		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	42.58	42.79

STN INTERNATIONAL LOGOFF AT 12:50:50 ON 20 MAY 2002

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

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FILE COVERS 1907 - 20 May 2002 VOL 136 ISS 21
 FILE LAST UPDATED: 19 May 2002 (20020519/ED)

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```
=> s laminate
      71962 LAMINATE
      54264 LAMINATES
L1    88344 LAMINATE
      (LAMINATE OR LAMINATES)
```

```
=> s wall
      211409 WALL
      103522 WALLS
L2    279420 WALL
      (WALL OR WALLS)
```

```
=> s (fiberglass or fibreglass or fiber glass or fibre glass)(1)layer
      2727 FIBERGLASS
      5 FIBERGLASSES
      2728 FIBERGLASS
      (FIBERGLASS OR FIBERGLASSES)
      7 FIBREGLASS
      414404 FIBER
      437241 FIBERS
      569195 FIBER
      (FIBER OR FIBERS)
      575144 GLASS
      106545 GLASSES
```

599821 GLASS
 (GLASS OR GLASSES)
 6880 FIBER GLASS
 (FIBER(W)GLASS)
 1812 FIBRE
 1300 FIBRES
 3001 FIBRE
 (FIBRE OR FIBRES)
 575144 GLASS
 106545 GLASSES
 599821 GLASS
 (GLASS OR GLASSES)
 2 FIBRE GLASS
 (FIBRE(W)GLASS)
 954028 LAYER
 429485 LAYERS
 1173826 LAYER
 (LAYER OR LAYERS)
 L3 523 (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LAYER

=> s cellulose(l)layer
 289544 CELLULOSE
 3817 CELLULOSES
 290146 CELLULOSE
 (CELLULOSE OR CELLULOSES)
 954028 LAYER
 429485 LAYERS
 1173826 LAYER
 (LAYER OR LAYERS)
 L4 18089 CELLULOSE(L) LAYER

=> s (fibreboard or fiberboard or fibre board or fiber board) (l)layer
 49 FIBREBOARD
 6 FIBREBOARDS
 54 FIBREBOARD
 (FIBREBOARD OR FIBREBOARDS)
 3096 FIBERBOARD
 2596 FIBERBOARDS
 3739 FIBERBOARD
 (FIBERBOARD OR FIBERBOARDS)
 1812 FIBRE
 1300 FIBRES
 3001 FIBRE
 (FIBRE OR FIBRES)
 61439 BOARD
 44542 BOARDS
 75982 BOARD
 (BOARD OR BOARDS)
 4 FIBRE BOARD
 (FIBRE(W) BOARD)
 414404 FIBER
 437241 FIBERS
 569195 FIBER
 (FIBER OR FIBERS)
 61439 BOARD
 44542 BOARDS
 75982 BOARD
 (BOARD OR BOARDS)
 1002 FIBER BOARD
 (FIBER(W) BOARD)
 954028 LAYER
 429485 LAYERS
 1173826 LAYER
 (LAYER OR LAYERS)

L5 463 (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LAYER

=> s (polyolefin or polyester) (1) layer

54198 POLYOLEFIN

40637 POLYOLEFINS

69657 POLYOLEFIN

(POLYOLEFIN OR POLYOLEFINS)

211117 POLYESTER

156892 POLYESTERS

256914 POLYESTER

(POLYESTER OR POLYESTERS)

954028 LAYER

429485 LAYERS

1173826 LAYER

(LAYER OR LAYERS)

L6 35508 (POLYOLEFIN OR POLYESTER) (L) LAYER

=> d his

(FILE 'HOME' ENTERED AT 13:29:45 ON 20 MAY 2002)

FILE 'CAPLUS' ENTERED AT 13:30:17 ON 20 MAY 2002

L1 88344 S LAMINATE

L2 279420 S WALL

L3 523 S (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LA

L4 18089 S CELLULOSE (L) LAYER

L5 463 S (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LA

L6 35508 S (POLYOLEFIN OR POLYESTER) (L) LAYER

=> s 12 and 13 and 14

L7 0 L2 AND L3 AND L4

=> s 11 and 12

L8 1772 L1 AND L2

=> s 18 and 13

L9 3 L8 AND L3

=> s 18 and 14

L10 25 L8 AND L4

=> s 18 and 16

L11 187 L8 AND L6

=> s 110 and 111

L12 4 L10 AND L11

=> s 111 and py<=1997

18116701 PY<=1997

L13 130 L11 AND PY<=1997

=> d 19 1-3 bib,abs

L9 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS

AN 2001:58580 CAPLUS

DN 134:116920

TI Blast-resistant **lamin**ate composite container **wall**
construction

IN Fisher, Russell J.

PA USA

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6177368	B1	20010123	US 1998-39836	19980316
AB	The construction withstanding gas-expansion explosives comprises a single substrate core (PVC) of an energy absorbing material; a 1st region of .gtoreq.1 layer of a 1st type fiberglass ; a 2nd region of .gtoreq.1 layer of a 2nd type fiber glass ; a 3rd region of .gtoreq.1 layer of fiberglass ; a 4th region of .gtoreq.1 layer of fiberglass , wherein the type of fiberglass of the 3rd region is different than the 2nd and 4th regions and the type of fiberglass of the 4th region is different than the 1st and 3rd regions and the core is a singular layer extending continuously between the 1st and 3rd regions without bifurcation and without reinforcement by an aramid material.				

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
AN 2000:814774 CAPLUS
DN 133:358177
TI Method for manufacturing a printed circuit board with integrated heat sink for semiconductor package
IN Juskey, Frank J.; McMillan, John R.; Huemoeller, Ronald P.
PA Amkor Technology, Inc., USA
SO PCT Int. Appl., 24 pp.
 CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000069239	A1	20001116	WO 2000-US13041	20000511
	W: CA, JP, KR, SG RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6337228	B1	20020108	US 1999-310660	19990512
	US 2002043402	A1	20020418	US 2001-6642	20011205
PRAI	US 1999-310660	A	19990512		
AB	A low-cost printed circuit board (10) for a semiconductor package having the footprint of a ball grid array package has an integral heat sink (20), or slug, for the mounting of one or more semiconductor chips, capable of efficiently conducting away at least five watts from the package in typical applications. It is made by forming an opening (16) through a sheet, or substrate (14), of B-stage epoxy/ fiberglass composite, or pre-preg, then inserting a slug (20) of a thermally conductive material having the same size and shape as the opening into the opening. The slug-contg. composite is sandwiched between two thin layers (30) of a conductive metal, preferably Cu, and the resulting sandwich (10) is simultaneously pressed and heated between the platen (12) of a heated press. The heat and pressure forces the resin to the surface of the composite (10) and into the space between the slug (20) and the walls of the composite, where it solidifies, bonding the edges of the slug (20) to the substrate (14) within the opening and adhering the conductive layers (30) to the upper and lower surfaces of the substrate (14). The resulting laminata (10) can thereafter be processed as a convention printed circuit board to incorporate conventional circuit board features, e.g., circuit traces, wire bonding pads, solder ball mounting lands, and via holes.				

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
AN 1999:481020 CAPLUS

DN 131:158527
 TI Sheets for decoration, decorative fiberglass reinforced plastic moldings having excellent glossy and smooth surface, and their manufacture
 IN Shimizu, Katsuhiko; Iwami, Etsushi; Tadaoka, Eisuke
 PA Hitachi Chemical Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11207878	A2	19990803	JP 1998-9406	19980121
AB	Title sheets (A) comprise a decorative base film as the facing layer and a coated thermosetting resin layer as lamination adhesive. Decorative fiberglass reinforced plastic (FRP) moldings, useful for bathroom construction materials, are manufd. by laminating A with FRP materials on a hot-press via the adhesive layer . Thus, polyester film was gravure printed, coated with a mixt. contg. PS 6150 (epoxy acrylate) and catalyst to give a sheet, which was laminated with FRP materials contg. Polyset PS 9415 (unsatd. polyester), RS 480PG580 (glass fiber) and additives, and press-molded to give a wall panel for bathroom having good glossy and smooth surface.				

=> d his

(FILE 'HOME' ENTERED AT 13:29:45 ON 20 MAY 2002)

FILE 'CAPLUS' ENTERED AT 13:30:17 ON 20 MAY 2002

L1 88344 S LAMINATE
 L2 279420 S WALL
 L3 523 S (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LA
 L4 18089 S CELLULOSE(L) LAYER
 L5 463 S (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LA
 L6 35508 S (POLYOLEFIN OR POLYESTER) (L) LAYER
 L7 0 S L2 AND L3 AND L4
 L8 1772 S L1 AND L2
 L9 3 S L8 AND L3
 L10 25 S L8 AND L4
 L11 187 S L8 AND L6
 L12 4 S L10 AND L11
 L13 130 S L11 AND PY<=1997

=> d l12 1-4 bib,abs

L12 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS
 AN 1999:27775 CAPLUS
 DN 130:111651
 TI Wallpaper or **wall** covering with at least one layer of biodegradable material
 IN Pommeranz, Winfried; Lorcks, Jurgen; Schmidt, Harald; Neumann, Frank
 PA Biotec Biologische Naturverpackungen G.m.b.H., Germany
 SO PCT Int. Appl., 44 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9858798	A1	19981230	WO 1998-IB940	19980618
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG,				

KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX,
 NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT,
 UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
 CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9875453 A1 19990104 AU 1998-75453 19980618

EP 991520 A1 20000412 EP 1998-923024 19980618

R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE

PRAI DE 1997-29710825 19970620

WO 1998-IB940 19980618

AB The title materials, with good strength and resistance to washing and abrasion and free from PVC, comprise paper bonded to biodegradable sheets contg. thermoplastic starch, natural polymers, polymers from fossil raw materials, or their blends. A **laminates** of paper (basis wt. 90 g/m2) with Bioflex BF 102/14 (a 35:65 blend of thermoplastic starch and polycaprolactone, basis wt. 90 g/m2) was a suitable material.

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS

AN 1985:150543 CAPLUS

DN 102:150543

TI Abrasion-resistant **laminates**

PA Nevamar Corp., USA

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 59162042	A2	19840912	JP 1983-214935	19831115
	JP 05034141	B4	19930521		
	US 4517235	A	19850514	US 1982-442070	19821116
	US 4520062	A	19850528	US 1983-529187	19830902
	ES 527284	A1	19841116	ES 1983-527284	19831115
PRAI	US 1982-442070		19821116		
	US 1983-529187		19830902		

AB Thermosetting resin, thermoplastic resin, paper or wood products were laminated with a very thin **layer** comprising a non-resinous binder and a mineral abrasive to obtain the title **laminates**. Thus, a compn. from water 617, CM-cellulose [9004-32-4] 14.5, microcryst. cellulose [9004-34-6] 45, Al2O3 45, a silane coupler 3, and formalin 1.5 g was coated to 10.9 lb/ream on a **polyester** film carrier, topped with Acrysol WS 68 [68052-99-3] (thermosetting acrylic polymer) to 9.0 lb/ream, hot-stamped on a high-pressure **laminates** at 325.degree. F and 50 psi for 30 s, and freed from the film carrier to obtain a laminated surface having better abrasion resistance than a control using a butylated melamine resin instead of the cellulosic binders.

L12 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS

AN 1972:160793 CAPLUS

DN 76:160793

TI Photographic fluid containers having an inner acid-reacting layer

IN Campbell, John E.

PA Polaroid Corp.

SO U.S., 6 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
--	------------	------	------	-----------------	------

 PI US 3649282 A 19720314 US 1970-28786 19700415
 AB A hydroxyethyl **cellulose layer** contg. an acid-reacting
 compd. such as citric acid or poly(acrylic acid) is placed between an
 outer Al foil **layer** and an inner polymer **layer** of a
 rupturable container for photog. processing compns. to prevent the caustic
 from reaching the Al and destroying the container. A rectangular
lamine structure consisting of the following successive
layers: **polyester** or paper backing, metallic foil, acid
 reacting compns., and poly(vinyl chloride) or poly(vinyl butyral) is
 folded medially upon itself and sealed along its periphery to prep. the
 container. One of the edges is precoated with a thermoplastic adhesive
 which possesses a lesser adhesive affinity for the polymeric **layer**
 than the polymeric **layer** does for itself, thereby assuring a
 unidirectional release of the container's contents upon application of
 pressure to the container **walls**.

L12 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS

AN 1967:518240 CAPLUS

DN 67:118240

TI Decorative plastic surface covering having a three-dimensional
 scintillating appearance

IN Jecker, Justin J.; Conger, Robert P.

PA Congoleum-Nairn Inc.

SO U.S., 7 pp.
 CODEN: USXXAM.

DT Patent

LA English

FAN. CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3345234		19671003	US	19630321
AB	Surface coverings with a 3-dimensional scintillating appearance are prepd. by embossing a resinous wear layer , covering with a thermosetting resin, curing the resin, and laminating the wear layer to a backing layer . Thus, poly(vinyl chloride) 100, dioctyl phthalate 33, Ba Cd laurate 2, epoxidized soybean oil 2, and carnauba wax 0.4 part were mixed at 350.degree.F. and calendered at 250.degree.F. to yield a clear 0.008-in. transparent sheet that was embossed at 325.degree.F. to a depth of 0.001-0.002 in. A coating comprising a long-chain polyester 28.8, a cellulose acetate butyrate soln. 5.8, a polyisocyanate 23, TiO2 4.3, EtOAc 7.6, BuOAc 7.6, PhMe 7.6, and Me Cellosolve acetate 15.3 wt. % was coated on the base and the coated sheet was air dried for 10 min. and cured at 275.degree.F. for 30 min. A 0.046-in. cellulosic felt sheet was impregnated with 10% poly(vinyl acetate) and 30% of a petroleum resin and was then coated with a coating comprising a vinyl chloride-di-Bu maleate latex (50% solids) 30, a butadiene-acrylonitrile copolymer latex (50% solids) 30, a Na alkylarenesulfonate 2, TiO2 14, whiting 54, a Me cellulose suspension (7% solids) 15, and H2O 20 parts. After heating at 115.degree. for 100 min., the coated felt was coated with an adhesive comprising a vinyl chloride-vinyl acetate copolymer modified with 1% maleic anhydride 10, an acrylonitrile-butadiene copolymer 10, MeCOEt 60, and iso-BuCOMe 20 parts. The coated felt was heated to 400.degree.F. and was passed through cold laminating rolls at 60.degree.F. simultaneously with the embossed coated film and with the embossed lamine in contact with the adhesive coating. The laminates thus produced can be used as floor, counter, or wall coverings.				

=> d his

(FILE 'HOME' ENTERED AT 13:29:45 ON 20 MAY 2002)

08|982559

=> log y		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	42.58	42.79

STN INTERNATIONAL LOGOFF AT 12:50:50 ON 20 MAY 2002

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

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FILE COVERS 1907 - 20 May 2002 VOL 136 ISS 21
 FILE LAST UPDATED: 19 May 2002 (20020519/ED)

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```
=> s laminate
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      54264 LAMINATES
L1    88344 LAMINATE
      (LAMINATE OR LAMINATES)

=> s wall
      211409 WALL
      103522 WALLS
L2    279420 WALL
      (WALL OR WALLS)

=> s (fiberglass or fibreglass or fiber glass or fibre glass)(l)layer
      2727 FIBERGLASS
      5 FIBERGLASSES
      2728 FIBERGLASS
      (FIBERGLASS OR FIBERGLASSES)
      7 FIBREGLASS
      414404 FIBER
      437241 FIBERS
      569195 FIBER
      (FIBER OR FIBERS)
      575144 GLASS
```

106545 GLASSES
599821 GLASS
 (GLASS OR GLASSES)
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 (FIBER(W)GLASS)
 1812 FIBRE
 1300 FIBRES
 3001 FIBRE
 (FIBRE OR FIBRES)

575144 GLASS
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599821 GLASS
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 2 FIBRE GLASS
 (FIBRE(W)GLASS)

954028 LAYER
429485 LAYERS
1173826 LAYER
 (LAYER OR LAYERS)

L3 523 (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LAYER

=> s cellulose(l)layer
 289544 CELLULOSE
 3817 CELLULOSES
 290146 CELLULOSE
 (CELLULOSE OR CELLULOSES)
 954028 LAYER
 429485 LAYERS
 1173826 LAYER
 (LAYER OR LAYERS)

L4 18089 CELLULOSE(L) LAYER

=> s (fibreboard or fiberboard or fibre board or fiber board) (l)layer

 49 FIBREBOARD
 6 FIBREBOARDS
 54 FIBREBOARD
 (FIBREBOARD OR FIBREBOARDS)
 3096 FIBERBOARD
 2596 FIBERBOARDS
 3739 FIBERBOARD
 (FIBERBOARD OR FIBERBOARDS)
 1812 FIBRE
 1300 FIBRES
 3001 FIBRE
 (FIBRE OR FIBRES)
 61439 BOARD
 44542 BOARDS
 75982 BOARD
 (BOARD OR BOARDS)
 4 FIBRE BOARD
 (FIBRE(W) BOARD)
 414404 FIBER
 437241 FIBERS
 569195 FIBER
 (FIBER OR FIBERS)
 61439 BOARD
 44542 BOARDS
 75982 BOARD
 (BOARD OR BOARDS)
 1002 FIBER BOARD
 (FIBER(W) BOARD)
 954028 LAYER
 429485 LAYERS

WEST Search History

DATE: Monday, May 20, 2002

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side			result set
	<i>DB=USPT,PGPB; PLUR=YES; OP=ADJ</i>		
L24	L23 and l20	18	L24
L23	52/309.12	704	L23
L22	52	1152577	L22
L21	l20 and l12 and l15 and l16	1	L21
L20	l1 same l5	5931	L20
L19	L18 and l12 and l15 and l16	5	L19
L18	l1 and l5	24556	L18
L17	l1 and l12 and l15 and l16	16	L17
L16	(fiberglass or fibreglass or fiber glass or fibre glass) same layer	11155	L16
L15	cellulose same layer	29196	L15
L14	l1 and l4 and l6 and l12	0	L14
L13	(fibreboard or fiberboard) same layer	973	L13
L12	foamed same (polyurethane or polystyrene) same layer	2212	L12
L11	l3 and l4 and l6	1	L11
L10	l5 and l3 and l4 and l6	0	L10
L9	l1 and l4 and l3 and l6	1	L9
L8	l6 and l7	15	L8
L7	impregnated same (urethane or polyester)	6205	L7
L6	cellulose layer	304	L6
L5	laminate	72289	L5
L4	fiberglass layer	728	L4
L3	(polyolefin or polyester) same layer	54314	L3
L2	cellulosic layer	189	L2
L1	WALL	985115	L1

END OF SEARCH HISTORY

WEST Search History

DATE: Monday, May 20, 2002

Set Name Query

side by side

Hit Count Set Name

result set

DB=USPT,PGPB; PLUR=YES; OP=ADJ

L17	l1 and l12 and l15 and l16	16	L17
L16	(fiberglass or fibreglass or fiber glass or fibre glass) same layer	11155	L16
L15	cellulose same layer	29196	L15
L14	l1 and l4 and l6 and l12	0	L14
L13	(fibreboard or fiberboard) same layer	973	L13
L12	foamed same (polyurethane or polystyrene) same layer	2212	L12
L11	l3 and l4 and l6	1	L11
L10	l5 and l3 and l4 and l6	0	L10
L9	l1 and l4 and l3 and l6	1	L9
L8	l6 and l7	15	L8
L7	impregnated same (urethane or polyester)	6205	L7
L6	cellulose layer	304	L6
L5	laminate	72289	L5
L4	fiberglass layer	728	L4
L3	(polyolefin or polyester) same layer	54314	L3
L2	cellulosic layer	189	L2
L1	WALL	985115	L1

END OF SEARCH HISTORY

Set Name Query

side by side

*DB=USPT,PGPB; PLUR=YES; OP=ADJ*L12 110 and 111L11 2.0 pounds same cubic footL10 16 and 18L9 17 and 18L8 12 and 13 and 14 and 15L7 442/221L6 polyethylene or polypropyleneL5 laminate or compositeL4 foam or (fiberboard or fiber-board or fibre-board or fibreboard)L3 densityL2 biaxially same oriented same filmL1 biaxially oriented film**Hit Count Set Name**

result set

1 L12139 L11304 L100 L9318 L8116 L7357267 L6303339 L5161592 L4540093 L36015 L21915 L1

END OF SEARCH HISTORY

WEST

Generate Collection

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Search Results - Record(s) 1 through 1 of 1 returned.☐ 1. Document ID: US 5695870 A

L12: Entry 1 of 1

File: USPT

Dec 9, 1997

US-PAT-NO: 5695870

DOCUMENT-IDENTIFIER: US 5695870 A

TITLE: Laminated foam insulation board of enhanced strength

DATE-ISSUED: December 9, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Kelch; Robert H.	Granville	OH		
Bibee; Douglas V.	Granville	OH		
Deibel; Ronald D.	Granville	OH		
Kocsis; Deborah L.	Granville	OH		

US-CL-CURRENT: 428/318.4; 428/317.1, 428/317.7, 428/319.3, 428/319.7, 428/334,
428/339

ABSTRACT:

Disclosed is a laminated foam insulation board having enhanced strength and resistance to bending and breaking. The board comprises a panel of an insulating plastic foam material and a thermoplastic facer film adhered to opposite surfaces of the panel. The facer films have an ultimate elongation of less than 200 percent in both machine and transverse directions, a yield tensile strength of at least 7,000 pounds per square inch (48,400 kilopascals) in both machine and transverse directions, and a 1 percent secant modulus of at least 200,000 pounds per square inch (1,380 megapascals) in both machine and transverse directions. The degree of adhesion is about 100 grams per inch or more (about 39.4 grams per centimeter or more) between the facer film and the foam panel.

24 Claims, 2 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 1

Full	Title	CLS.1	SEQ.1	ATT.1
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Generate Collection

Print

Term	Documents
(11 AND 10).USPT,PGPB.	1
(L10 AND L11).USPT,PGPB.	1

Display Format:

[Previous Page](#) [Next Page](#)

<u>Set Name</u>	<u>Query</u>	<u>Hit Count</u>	<u>Set Name</u>
side by side		result set	
<i>DB=USPT,PGPB; PLUR=YES; OP=ADJ</i>			
<u>L18</u>	l9 and l17	0	<u>L18</u>
<u>L17</u>	l7 and l11	165	<u>L17</u>
<u>L16</u>	l9 and l15	0	<u>L16</u>
<u>L15</u>	l11 and l14	144	<u>L15</u>
<u>L14</u>	l1 and l2 and l3 and l4 and l5	2348	<u>L14</u>
<u>L13</u>	l9 and l12	0	<u>L13</u>
<u>L12</u>	l8 and l11	144	<u>L12</u>
<u>L11</u>	density same 2.0	17351	<u>L11</u>
<u>L10</u>	l8 and l9	12	<u>L10</u>
<u>L9</u>	442/221	116	<u>L9</u>
<u>L8</u>	l7 and l5	2348	<u>L8</u>
<u>L7</u>	l4 and l6	3032	<u>L7</u>
<u>L6</u>	l1 and l2 and l3	4799	<u>L6</u>
<u>L5</u>	polyethylene or polypropylene	357267	<u>L5</u>
<u>L4</u>	laminate or composite	303339	<u>L4</u>
<u>L3</u>	woven same fabric	46039	<u>L3</u>
<u>L2</u>	foam or (fiberboard or fibreboard)	161509	<u>L2</u>
<u>L1</u>	DENSITY	540093	<u>L1</u>

END OF SEARCH HISTORY

WEST

Generate Collection

Print

Search Results - Record(s) 1 through 4 of 4 returned.☒ 1. Document ID: US 6070635 A

L1: Entry 1 of 4

File: USPT

Jun 6, 2000

US-PAT-NO: 6070635

DOCUMENT-IDENTIFIER: US 6070635 A

TITLE: Nonwoven sheet products made from plexifilamentary film fibril webs

DATE-ISSUED: June 6, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Franke; Ralph A.	Richmond	VA		
Lim; Hyun S.	Chesterfield	NJ		
Milone; Michael P.	Elmer	NJ		
Raty; R. Gail	Wilmington	DE		
Vaidyanathan; Akhileswar G.	Hockessin	DE		

US-CL-CURRENT: 156/378; 264/40.1, 378/86, 378/88, 382/141

ABSTRACT:

This invention relates to improved sheet products and specifically to improved nonwoven sheet products made from highly oriented plexifilamentary film-fibril webs. The improved sheet products have high opacity and strength with a much wider range of porosity or Gurley Hill Porosity Values. In particular, sheet products made in accordance with the present invention have considerably higher Gurley Hill Porosity Values than similar weight sheet products subject to the same finishing treatments in accordance with prior known sheet materials. Similarly, sheet products made in accordance with the present invention can be made which have much lower Gurley Hill Porosity Values than prior sheet materials. The invention includes numerous methods and data characterizing the webs and sheets that form the improved sheet materials.

3 Claims, 4 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	ENC	Draw Desc	Image
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☒ 2. Document ID: US 6046118 A

L1: Entry 2 of 4

File: USPT

Apr 4, 2000

US-PAT-NO: 6046118

DOCUMENT-IDENTIFIER: US 6046118 A

WEST[Help](#)[Logout](#)[Interrupt](#)[Main Menu](#)[Search Form](#)[Posting Counts](#)[Show S Numbers](#)[Edit S Numbers](#)[Preferences](#)[Cases](#)**Search Results -**

Term	Documents
(11 AND 10).USPT,PGPB.	1
(L10 AND L11).USPT,PGPB.	1

Database:

US Patents Full-Text Database
US Pre-Grant Publication Full-Text Database
JPO Abstracts Database
EPO Abstracts Database
Derwent World Patents Index
IBM Technical Disclosure Bulletins

Search:

L12

[Refine Search](#)[Recall Text](#)[Clear](#)**Search History****DATE:** Sunday, November 24, 2002 [Printable Copy](#) [Create Case](#)

TITLE: Composite sheet material

DATE-ISSUED: April 4, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Jones; David C.	Midlothian	VA		
Rudys; Stasys K.	Midlothian	VA		

US-CL-CURRENT: 442/57; 442/382, 442/389

ABSTRACT:

A breathable composite sheet material includes a first layer of flash-spun polyethylene plexifilamentary film-fibril sheet and a second layer of a thermoplastic open mesh fabric thermally laminated to the first layer. The composite sheet has an average tensile strength and an average grab tensile strength that are each at least 10% greater than the sum of the tensile and grab strengths of the first and second layers. The average tensile strength of the composite sheet after exposure to 400 mJ/m.^{sup.2} of ultraviolet light is at least 65% of the tensile strength of the sheet before any substantial exposure to ultraviolet light.

6 Claims, 3 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 2

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments	Claims	KMC	Draw Desc	Image
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☒ 3. Document ID: US 5888614 A

L1: Entry 3 of 4

File: USPT

Mar 30, 1999

US-PAT-NO: 5888614

DOCUMENT-IDENTIFIER: US 5888614 A

TITLE: Microperforated strength film for use as an anti-infiltration barrier

DATE-ISSUED: March 30, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Slocum; Donald H.	Morristown	NJ	07960	
Healey; Daniel P.	Brielle	NJ		

US-CL-CURRENT: 428/132; 156/164, 156/209, 156/244.18, 156/244.19, 156/250, 156/252, 156/253, 428/105, 428/131, 428/137, 428/182, 428/220, 428/338, 428/913, 52/408, 52/746.1, 83/30, 83/347

ABSTRACT:

A house wrap film product includes a laminated poly film with a first poly film ply and a second poly film ply and micropuncture formed in the laminated poly film to allow vapor transmission from a first side of the laminated poly film to a second side of the laminated poly film. Each of the poly plies is formed of a spiral cut film having a first ply with a first orientation and a second ply having a second orientation, the first orientation being at an angle with respect to an edge of said film and said second orientation being at an angle with respect to an edge of said

film, said first ply and said second ply being laminated together cross oriented such that said first orientation extends in a different direction from said second orientation. The micropuncture provides a deformed region of said film, surrounding said hole. A method is provided for forming the house wrap product.

20 Claims, 14 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 6

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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NAME	Draw Desc	Image
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☒ 4. Document ID: US 5863639 A

L1: Entry 4 of 4

File: USPT

Jan 26, 1999

US-PAT-NO: 5863639

DOCUMENT-IDENTIFIER: US 5863639 A

TITLE: Nonwoven sheet products made from plexifilamentary film fibril webs

DATE-ISSUED: January 26, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Franke; Ralph A.	Richmond	VA		
Lim; Hyun S.	Chesterfield	VA		
Marshall; Larry Ray	Chesterfield	VA		
Milone; Michael P.	Elmer	NJ		
Raty; R. Gail	Wilmington	DE		
Vaidyanathan; Akhileswar G.	Hockessin	DE		

US-CL-CURRENT: 428/198; 324/71.1, 356/431, 428/212, 428/218, 428/219, 428/315.5,
428/903, 442/334, 73/159

ABSTRACT:

This invention relates to improved sheet products and specifically to improved nonwoven sheet products made from highly oriented plexifilamentary film-fibril webs. The improved sheet products have high opacity and strength with a much wider range of porosity or Gurley Hill Porosity Values. In particular, sheet products made in accordance with the present invention have considerably higher Gurley Hill Porosity Values than similar weight sheet products subject to the same finishing treatments in accordance with prior known sheet materials. Similarly, sheet products made in accordance with the present invention can be made which have much lower Gurley Hill Porosity Values than prior sheet materials. The invention includes numerous methods and data characterizing the webs and sheets that form the improved sheet materials.

20 Claims, 4 Drawing figures

Exemplary Claim Number: 1,9

Number of Drawing Sheets: 3

Full	Title	Citation	Front	Review	Classification	Date	Reference	Sequences	Attachments
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NAME	Draw Desc	Image
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Term	Documents
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"6046118"[USPT]	1
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"6070635"[USPT]	1
6070635S	0
"5888614"[USPT]	1
5888614S	0
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((5863639 OR 6046118 OR 6070635 OR 5888614)[PN]).USPT.	4

Display Format:

REV

Change Format

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1173826 LAYER
      (LAYER OR LAYERS)
L5      463 (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LAYER
=> s (polyolefin or polyester) (1) layer
      54198 POLYOLEFIN
      40637 POLYOLEFINS
      69657 POLYOLEFIN
            (POLYOLEFIN OR POLYOLEFINS)
      211117 POLYESTER
      156892 POLYESTERS
      256914 POLYESTER
            (POLYESTER OR POLYESTERS)
      954028 LAYER
      429485 LAYERS
      1173826 LAYER
            (LAYER OR LAYERS)
L6      35508 (POLYOLEFIN OR POLYESTER) (L) LAYER
=> d his
      (FILE 'HOME' ENTERED AT 13:29:45 ON 20 MAY 2002)
      FILE 'CAPLUS' ENTERED AT 13:30:17 ON 20 MAY 2002
L1      88344 S LAMINATE
L2      279420 S WALL
L3      523 S (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LA
L4      18089 S CELLULOSE (L) LAYER
L5      463 S (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LA
L6      35508 S (POLYOLEFIN OR POLYESTER) (L) LAYER
=> s 12 and 13 and 14
L7      0 L2 AND L3 AND L4
=> s 11 and 12
L8      1772 L1 AND L2
=> s 18 and 13
L9      3 L8 AND L3
=> s 18 and 14
L10     25 L8 AND L4
=> s 18 and 16
L11     187 L8 AND L6
=> s 110 and 111
L12     4 L10 AND L11
=> s 111 and py<=1997
      18116701 PY<=1997
L13     130 L11 AND PY<=1997
=> d 19 1-3 bib,abs
L9      ANSWER 1 OF 3 CAPLUS COPYRIGHT 2002 ACS
AN      2001:58580 CAPLUS
DN      134:116920
TI      Blast-resistant laminate composite container wall
      construction
IN      Fisher, Russell J.
PA      USA
SO      U.S., 5 pp.

```

CODEN: USXXAM

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6177368	B1	20010123	US 1998-39836	19980316
AB	The construction withstanding gas-expansion explosives comprises a single substrate core (PVC) of an energy absorbing material; a 1st region of .gtoreq.1 layer of a 1st type fiberglass ; a 2nd region of .gtoreq.1 layer of a 2nd type fiber glass ; a 3rd region of .gtoreq.1 layer of fiberglass ; a 4th region of .gtoreq.1 layer of fiberglass , wherein the type of fiberglass of the 3rd region is different than the 2nd and 4th regions and the type of fiberglass of the 4th region is different than the 1st and 3rd regions and the core is a singular layer extending continuously between the 1st and 3rd regions without bifurcation and without reinforcement by an aramid material.				
RE.CNT	3	THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT			

L9 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
AN 2000:814774 CAPLUS
DN 133:358177
TI Method for manufacturing a printed circuit board with integrated heat sink for semiconductor package
IN Juskey, Frank J.; McMillan, John R.; Huemoeller, Ronald P.
PA Amkor Technology, Inc., USA
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000069239	A1	20001116	WO 2000-US13041	20000511
	W: CA, JP, KR, SG RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6337228	B1	20020108	US 1999-310660	19990512
	US 2002043402	A1	20020418	US 2001-6642	20011205
PRAI	US 1999-310660	A	19990512		
AB	A low-cost printed circuit board (10) for a semiconductor package having the footprint of a ball grid array package has an integral heat sink (20), or slug, for the mounting of one or more semiconductor chips, capable of efficiently conducting away at least five watts from the package in typical applications. It is made by forming an opening (16) through a sheet, or substrate (14), of B-stage epoxy/ fiberglass composite, or pre-preg, then inserting a slug (20) of a thermally conductive material having the same size and shape as the opening into the opening. The slug-contg. composite is sandwiched between two thin layers (30) of a conductive metal, preferably Cu, and the resulting sandwich (10) is simultaneously pressed and heated between the platen (12) of a heated press. The heat and pressure forces the resin to the surface of the composite (10) and into the space between the slug (20) and the walls of the composite, where it solidifies, bonding the edges of the slug (20) to the substrate (14) within the opening and adhering the conductive layers (30) to the upper and lower surfaces of the substrate (14). The resulting laminates (10) can thereafter be processed as a convention printed circuit board to incorporate conventional circuit board features, e.g., circuit traces, wire bonding pads, solder ball mounting lands, and via holes.				

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
 AN 1999:481020 CAPLUS
 DN 131:158527
 TI Sheets for decoration, decorative fiberglass reinforced plastic moldings having excellent glossy and smooth surface, and their manufacture
 IN Shimizu, Katsuhiko; Iwami, Etsushi; Tadaoka, Eisuke
 PA Hitachi Chemical Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11207878	A2	19990803	JP 1998-9406	19980121

AB Title sheets (A) comprise a decorative base film as the facing **layer** and a coated thermosetting resin **layer** as lamination adhesive. Decorative **fiberglass** reinforced plastic (FRP) moldings, useful for bathroom construction materials, are manufd. by laminating A with FRP materials on a hot-press via the adhesive **layer**. Thus, polyester film was gravure printed, coated with a mixt. contg. PS 6150 (epoxy acrylate) and catalyst to give a sheet, which was laminated with FRP materials contg. Polyset PS 9415 (unsatd. polyester), RS 480PG580 (glass fiber) and additives, and press-molded to give a **wall** panel for bathroom having good glossy and smooth surface.

=> d his

(FILE 'HOME' ENTERED AT 13:29:45 ON 20 MAY 2002)

FILE 'CAPLUS' ENTERED AT 13:30:17 ON 20 MAY 2002

L1 88344 S LAMINATE
 L2 279420 S WALL
 L3 523 S (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LA
 L4 18089 S CELLULOSE (L) LAYER
 L5 463 S (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LA
 L6 35508 S (POLYOLEFIN OR POLYESTER) (L) LAYER
 L7 0 S L2 AND L3 AND L4
 L8 1772 S L1 AND L2
 L9 3 S L8 AND L3
 L10 25 S L8 AND L4
 L11 187 S L8 AND L6
 L12 4 S L10 AND L11
 L13 130 S L11 AND PY<=1997

=> d l12 1-4 bib,abs

L12 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS
 AN 1999:27775 CAPLUS
 DN 130:111651
 TI Wallpaper or **wall** covering with at least one layer of biodegradable material
 IN Pommeranz, Winfried; Lorcks, Jurgen; Schmidt, Harald; Neumann, Frank
 PA Biotec Biologische Naturverpackungen G.m.b.H., Germany
 SO PCT Int. Appl., 44 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9858798	A1	19981230	WO 1998-IB940	19980618
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9875453	A1	19990104	AU 1998-75453	19980618
	EP 991520	A1	20000412	EP 1998-923024	19980618
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
PRAI	DE 1997-29710825		19970620		
	WO 1998-IB940		19980618		
AB	The title materials, with good strength and resistance to washing and abrasion and free from PVC, comprise paper bonded to biodegradable sheets contg. thermoplastic starch, natural polymers, polymers from fossil raw materials, or their blends. A laminate of paper (basis wt. 90 g/m2) with Bioflex BF 102/14 (a 35:65 blend of thermoplastic starch and polycaprolactone, basis wt. 90 g/m2) was a suitable material.				
RE.CNT	11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L12 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS

AN 1985:150543 CAPLUS

DN 102:150543

TI Abrasion-resistant **laminates**

PA Nevamar Corp., USA

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 59162042	A2	19840912	JP 1983-214935	19831115
	JP 05034141	B4	19930521		
	US 4517235	A	19850514	US 1982-442070	19821116
	US 4520062	A	19850528	US 1983-529187	19830902
	ES 527284	A1	19841116	ES 1983-527284	19831115
PRAI	US 1982-442070		19821116		
	US 1983-529187		19830902		

AB Thermosetting resin, thermoplastic resin, paper or wood products were laminated with a very thin **layer** comprising a non-resinous binder and a mineral abrasive to obtain the title **laminates**. Thus, a compn. from water 617, CM-**cellulose** [9004-32-4] 14.5, microcryst. **cellulose** [9004-34-6] 45, Al2O3 45, a silane coupler 3, and formalin 1.5 g was coated to 10.9 lb/ream on a **polyester** film carrier, topped with Acrysol WS 68 [68052-99-3] (thermosetting acrylic polymer) to 9.0 lb/ream, hot-stamped on a high-pressure **laminate** at 325.degree. F and 50 psi for 30 s, and freed from the film carrier to obtain a laminated surface having better abrasion resistance than a control using a butylated melamine resin instead of the cellulosic binders.

L12 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS

AN 1972:160793 CAPLUS

DN 76:160793

TI Photographic fluid containers having an inner acid-reacting layer

IN Campbell, John E.

PA Polaroid Corp.

SO U.S., 6 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3649282	A	19720314	US 1970-28786	19700415

AB A hydroxyethyl **cellulose layer** contg. an acid-reacting compd. such as citric acid or poly(acrylic acid) is placed between an outer Al foil **layer** and an inner polymer **layer** of a rupturable container for photog. processing compns. to prevent the caustic from reaching the Al and destroying the container. A rectangular **laminate** structure consisting of the following successive **layers**: **polyester** or paper backing, metallic foil, acid reacting compns., and poly(vinyl chloride) or poly(vinyl butyral) is folded medially upon itself and sealed along its periphery to prep. the container. One of the edges is precoated with a thermoplastic adhesive which possesses a lesser adhesive affinity for the polymeric **layer** than the polymeric **layer** does for itself, thereby assuring a unidirectional release of the container's contents upon application of pressure to the container **walls**.

L12 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS
AN 1967:518240 CAPLUS
DN 67:118240

TI Decorative plastic surface covering having a three-dimensional scintillating appearance

IN Jecker, Justin J.; Conger, Robert P.
PA Congoleum-Nairn Inc.

SO U.S., 7 pp.
CODEN: USXXAM

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3345234		19671003	US	19630321

AB Surface coverings with a 3-dimensional scintillating appearance are prepd. by embossing a resinous wear **layer**, covering with a thermosetting resin, curing the resin, and laminating the wear **layer** to a backing **layer**. Thus, poly(vinyl chloride) 100, dioctyl phthalate 33, Ba Cd laurate 2, epoxidized soybean oil 2, and carnauba wax 0.4 part were mixed at 350.degree.F. and calendered at 250.degree.F. to yield a clear 0.008-in. transparent sheet that was embossed at 325.degree.F. to a depth of 0.001-0.002 in. A coating comprising a long-chain **polyester** 28.8, a **cellulose** acetate butyrate soln. 5.8, a polyisocyanate 23, TiO2 4.3, EtOAc 7.6, BuOAc 7.6, PhMe 7.6, and Me Cellosolve acetate 15.3 wt. % was coated on the base and the coated sheet was air dried for 10 min. and cured at 275.degree.F. for 30 min. A 0.046-in. cellulosic felt sheet was impregnated with 10% poly(vinyl acetate) and 30% of a petroleum resin and was then coated with a coating comprising a vinyl chloride-di-Bu maleate latex (50% solids) 30, a butadiene-acrylonitrile copolymer latex (50% solids) 30, a Na alkylarenesulfonate 2, TiO2 14, whiting 54, a Me **cellulose** suspension (7% solids) 15, and H2O 20 parts. After heating at 115.degree. for 100 min., the coated felt was coated with an adhesive comprising a vinyl chloride-vinyl acetate copolymer modified with 1% maleic anhydride 10, an acrylonitrile-butadiene copolymer 10, MeCOEt 60, and iso-BuCOMe 20 parts. The coated felt was heated to 400.degree.F. and was passed through cold laminating rolls at 60.degree.F. simultaneously with the embossed coated film and with the embossed **laminate** in contact with the adhesive coating. The

laminates thus produced can be used as floor, counter, or wall coverings.

=> d his

(FILE 'HOME' ENTERED AT 13:29:45 ON 20 MAY 2002)

FILE 'CAPLUS' ENTERED AT 13:30:17 ON 20 MAY 2002

L1 88344 S LAMINATE
L2 279420 S WALL
L3 523 S (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LA
L4 18089 S CELLULOSE(L) LAYER
L5 463 S (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LA
L6 35508 S (POLYOLEFIN OR POLYESTER) (L) LAYER
L7 0 S L2 AND L3 AND L4
L8 1772 S L1 AND L2
L9 3 S L8 AND L3
L10 25 S L8 AND L4
L11 187 S L8 AND L6
L12 4 S L10 AND L11
L13 130 S L11 AND PY<=1997

=> s l2 and l3 and l5

L14 0 L2 AND L3 AND L5

=> log y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	58.16	58.37
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-4.34	-4.34

STN INTERNATIONAL LOGOFF AT 13:39:56 ON 20 MAY 2002

=> log y		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	42.58	42.79

STN INTERNATIONAL LOGOFF AT 12:50:50 ON 20 MAY 2002

=> file caplus		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 13:30:17 ON 20 MAY 2002
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FILE COVERS 1907 - 20 May 2002 VOL 136 ISS 21
 FILE LAST UPDATED: 19 May 2002 (20020519/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

```
=> s laminate
      71962 LAMINATE
      54264 LAMINATES
L1    88344 LAMINATE
      (LAMINATE OR LAMINATES)
```

```
=> s wall
      211409 WALL
      103522 WALLS
L2    279420 WALL
      (WALL OR WALLS)
```

```
=> s (fiberglass or fibreglass or fiber glass or fibre glass)(l)layer
      2727 FIBERGLASS
      5 FIBERGLASSES
      2728 FIBERGLASS
      (FIBERGLASS OR FIBERGLASSES)
      7 FIBREGLASS
      414404 FIBER
      437241 FIBERS
      569195 FIBER
      (FIBER OR FIBERS)
      575144 GLASS
```

106545 GLASSES
599821 GLASS
 (GLASS OR GLASSES)
6880 FIBER GLASS
 (FIBER(W)GLASS)
1812 FIBRE
1300 FIBRES
3001 FIBRE
 (FIBRE OR FIBRES)

575144 GLASS
106545 GLASSES
599821 GLASS
 (GLASS OR GLASSES)
2 FIBRE GLASS
 (FIBRE(W)GLASS)

954028 LAYER
429485 LAYERS
1173826 LAYER
 (LAYER OR LAYERS)

L3 523 (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LAYER

=> s cellulose(l)layer
289544 CELLULOSE
3817 CELLULOSES
290146 CELLULOSE
 (CELLULOSE OR CELLULOSES)
954028 LAYER
429485 LAYERS
1173826 LAYER
 (LAYER OR LAYERS)

L4 18089 CELLULOSE(L) LAYER

=> s (fibreboard or fiberboard or fibre board or fiber board) (l)layer
49 FIBREBOARD
6 FIBREBOARDS
54 FIBREBOARD
 (FIBREBOARD OR FIBREBOARDS)
3096 FIBERBOARD
2596 FIBERBOARDS
3739 FIBERBOARD
 (FIBERBOARD OR FIBERBOARDS)
1812 FIBRE
1300 FIBRES
3001 FIBRE
 (FIBRE OR FIBRES)
61439 BOARD
44542 BOARDS
75982 BOARD
 (BOARD OR BOARDS)
4 FIBRE BOARD
 (FIBRE(W) BOARD)
414404 FIBER
437241 FIBERS
569195 FIBER
 (FIBER OR FIBERS)
61439 BOARD
44542 BOARDS
75982 BOARD
 (BOARD OR BOARDS)
1002 FIBER BOARD
 (FIBER(W) BOARD)
954028 LAYER
429485 LAYERS


```

1173826 LAYER
      (LAYER OR LAYERS)
L5      463 (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LAYER

=> s (polyolefin or polyester) (l) layer
      54198 POLYOLEFIN
      40637 POLYOLEFINS
      69657 POLYOLEFIN
            (POLYOLEFIN OR POLYOLEFINS)
      211117 POLYESTER
      156892 POLYESTERS
      256914 POLYESTER
            (POLYESTER OR POLYESTERS)
      954028 LAYER
      429485 LAYERS
      1173826 LAYER
            (LAYER OR LAYERS)
L6      35508 (POLYOLEFIN OR POLYESTER) (L) LAYER

=> d his
      (FILE 'HOME' ENTERED AT 13:29:45 ON 20 MAY 2002)

      FILE 'CAPLUS' ENTERED AT 13:30:17 ON 20 MAY 2002
L1      88344 S LAMINATE
L2      279420 S WALL
L3      523 S (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LA
L4      18089 S CELLULOSE(L) LAYER
L5      463 S (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LA
L6      35508 S (POLYOLEFIN OR POLYESTER) (L) LAYER

=> s 12 and 13 and 14
L7      0 L2 AND L3 AND L4

=> s 11 and 12
L8      1772 L1 AND L2

=> s 18 and 13
L9      3 L8 AND L3

=> s 18 and 14
L10     25 L8 AND L4

=> s 18 and 16
L11     187 L8 AND L6

=> s 110 and 111
L12     4 L10 AND L11

=> s 111 and py<=1997
      18116701 PY<=1997
L13     130 L11 AND PY<=1997

=> d 19 1-3 bib,abs

L9      ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2002 ACS
AN      2001:58580  CAPLUS
DN      134:116920
TI      Blast-resistant laminate composite container wall
      construction
IN      Fisher, Russell J.
PA      USA
SO      U.S., 5 pp.

```

CODEN: USXXAM

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6177368	B1	20010123	US 1998-39836	19980316
AB	The construction withstanding gas-expansion explosives comprises a single substrate core (PVC) of an energy absorbing material; a 1st region of .gtoreq.1 layer of a 1st type fiberglass ; a 2nd region of .gtoreq.1 layer of a 2nd type fiber glass ; a 3rd region of .gtoreq.1 layer of fiberglass ; a 4th region of .gtoreq.1 layer of fiberglass , wherein the type of fiberglass of the 3rd region is different than the 2nd and 4th regions and the type of fiberglass of the 4th region is different than the 1st and 3rd regions and the core is a singular layer extending continuously between the 1st and 3rd regions without bifurcation and without reinforcement by an aramid material.				
RE.CNT 3	THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L9 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2002 ACS
AN 2000:814774 CAPLUS
DN 133:358177
TI Method for manufacturing a printed circuit board with integrated heat sink for semiconductor package
IN Juskey, Frank J.; McMillan, John R.; Huemoeller, Ronald P.
PA Amkor Technology, Inc., USA
SO PCT Int. Appl., 24 pp.
CODEN: PIXXD2

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000069239	A1	20001116	WO 2000-US13041	20000511
	W: CA, JP, KR, SG RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6337228	B1	20020108	US 1999-310660	19990512
	US 2002043402	A1	20020418	US 2001-6642	20011205
PRAI	US 1999-310660	A	19990512		
AB	A low-cost printed circuit board (10) for a semiconductor package having the footprint of a ball grid array package has an integral heat sink (20), or slug, for the mounting of one or more semiconductor chips, capable of efficiently conducting away at least five watts from the package in typical applications. It is made by forming an opening (16) through a sheet, or substrate (14), of B-stage epoxy/ fiberglass composite, or pre-preg, then inserting a slug (20) of a thermally conductive material having the same size and shape as the opening into the opening. The slug-contg. composite is sandwiched between two thin layers (30) of a conductive metal, preferably Cu, and the resulting sandwich (10) is simultaneously pressed and heated between the platen (12) of a heated press. The heat and pressure forces the resin to the surface of the composite (10) and into the space between the slug (20) and the walls of the composite, where it solidifies, bonding the edges of the slug (20) to the substrate (14) within the opening and adhering the conductive layers (30) to the upper and lower surfaces of the substrate (14). The resulting laminata (10) can thereafter be processed as a convention printed circuit board to incorporate conventional circuit board features, e.g., circuit traces, wire bonding pads, solder ball mounting lands, and via holes.				

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2002 ACS
 AN 1999:481020 CAPLUS
 DN 131:158527
 TI Sheets for decoration, decorative fiberglass reinforced plastic moldings having excellent glossy and smooth surface, and their manufacture
 IN Shimizu, Katsuhiko; Iwami, Etsushi; Tadaoka, Eisuke
 PA Hitachi Chemical Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11207878	A2	19990803	JP 1998-9406	19980121
AB	Title sheets (A) comprise a decorative base film as the facing layer and a coated thermosetting resin layer as lamination adhesive. Decorative fiberglass reinforced plastic (FRP) moldings, useful for bathroom construction materials, are manufd. by laminating A with FRP materials on a hot-press via the adhesive layer . Thus, polyester film was gravure printed, coated with a mixt. contg. PS 6150 (epoxy acrylate) and catalyst to give a sheet, which was laminated with FRP materials contg. Polyset PS 9415 (unsatd. polyester), RS 480PG580 (glass fiber) and additives, and press-molded to give a wall panel for bathroom having good glossy and smooth surface.				

=> d his

(FILE 'HOME' ENTERED AT 13:29:45 ON 20 MAY 2002)

FILE 'CAPLUS' ENTERED AT 13:30:17 ON 20 MAY 2002

L1 88344 S LAMINATE
 L2 279420 S WALL
 L3 523 S (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LA
 L4 18089 S CELLULOSE (L) LAYER
 L5 463 S (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LA
 L6 35508 S (POLYOLEFIN OR POLYESTER) (L) LAYER
 L7 0 S L2 AND L3 AND L4
 L8 1772 S L1 AND L2
 L9 3 S L8 AND L3
 L10 25 S L8 AND L4
 L11 187 S L8 AND L6
 L12 4 S L10 AND L11
 L13 130 S L11 AND PY<=1997

=> d l12 1-4 bib,abs

L12 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2002 ACS
 AN 1999:27775 CAPLUS
 DN 130:111651
 TI Wallpaper or **wall** covering with at least one layer of biodegradable material
 IN Pommeranz, Winfried; Lorcks, Jurgen; Schmidt, Harald; Neumann, Frank
 PA Biotec Biologische Naturverpackungen G.m.b.H., Germany
 SO PCT Int. Appl., 44 pp.
 CODEN: PIXXD2
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9858798	A1	19981230	WO 1998-IB940	19980618
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	AU 9875453	A1	19990104	AU 1998-75453	19980618
	EP 991520	A1	20000412	EP 1998-923024	19980618
	R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE				
PRAI	DE 1997-29710825		19970620		
	WO 1998-IB940		19980618		
AB	The title materials, with good strength and resistance to washing and abrasion and free from PVC, comprise paper bonded to biodegradable sheets contg. thermoplastic starch, natural polymers, polymers from fossil raw materials, or their blends. A laminates of paper (basis wt. 90 g/m2) with Bioflex BF 102/14 (a 35:65 blend of thermoplastic starch and polycaprolactone, basis wt. 90 g/m2) was a suitable material.				
RE.CNT	11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD				
	ALL CITATIONS AVAILABLE IN THE RE FORMAT				

L12 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2002 ACS

AN 1985:150543 CAPLUS

DN 102:150543

TI Abrasion-resistant **laminates**

PA Nevamar Corp., USA

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 59162042	A2	19840912	JP 1983-214935	19831115
	JP 05034141	B4	19930521		
	US 4517235	A	19850514	US 1982-442070	19821116
	US 4520062	A	19850528	US 1983-529187	19830902
	ES 527284	A1	19841116	ES 1983-527284	19831115
PRAI	US 1982-442070		19821116		
	US 1983-529187		19830902		

AB Thermosetting resin, thermoplastic resin, paper or wood products were laminated with a very thin **layer** comprising a non-resinous binder and a mineral abrasive to obtain the title **laminates**. Thus, a compn. from water 617, CM-cellulose [9004-32-4] 14.5, microcryst. cellulose [9004-34-6] 45, Al2O3 45, a silane coupler 3, and formalin 1.5 g was coated to 10.9 lb/ream on a polyester film carrier, topped with Acrysol WS 68 [68052-99-3] (thermosetting acrylic polymer) to 9.0 lb/ream, hot-stamped on a high-pressure **laminates** at 325.degree. F and 50 psi for 30 s, and freed from the film carrier to obtain a laminated surface having better abrasion resistance than a control using a butylated melamine resin instead of the cellulosic binders.

L12 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS

AN 1972:160793 CAPLUS

DN 76:160793

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IN Campbell, John E.

PA Polaroid Corp.

SO U.S., 6 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3649282	A	19720314	US 1970-28786	19700415
AB	A hydroxyethyl cellulose layer contg. an acid-reacting compd. such as citric acid or poly(acrylic acid) is placed between an outer Al foil layer and an inner polymer layer of a rupturable container for photog. processing compns. to prevent the caustic from reaching the Al and destroying the container. A rectangular laminated structure consisting of the following successive layers : polyester or paper backing, metallic foil, acid reacting compns., and poly(vinyl chloride) or poly(vinyl butyral) is folded medially upon itself and sealed along its periphery to prep. the container. One of the edges is precoated with a thermoplastic adhesive which possesses a lesser adhesive affinity for the polymeric layer than the polymeric layer does for itself, thereby assuring a unidirectional release of the container's contents upon application of pressure to the container walls .				

L12 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2002 ACS
AN 1967:518240 CAPLUS
DN 67:118240

TI Decorative plastic surface covering having a three-dimensional scintillating appearance

IN Jecker, Justin J.; Conger, Robert P.

PA Congoleum-Nairn Inc.

SO U.S., 7 pp.
CODEN: USXXAM

DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3345234		19671003	US	19630321
AB	Surface coverings with a 3-dimensional scintillating appearance are prepd. by embossing a resinous wear layer , covering with a thermosetting resin, curing the resin, and laminating the wear layer to a backing layer . Thus, poly(vinyl chloride) 100, dioctyl phthalate 33, Ba Cd laurate 2, epoxidized soybean oil 2, and carnauba wax 0.4 part were mixed at 350.degree.F. and calendered at 250.degree.F. to yield a clear 0.008-in. transparent sheet that was embossed at 325.degree.F. to a depth of 0.001-0.002 in. A coating comprising a long-chain polyester 28.8, a cellulose acetate butyrate soln. 5.8, a polyisocyanate 23, TiO2 4.3, EtOAc 7.6, BuOAc 7.6, PhMe 7.6, and Me Cellosolve acetate 15.3 wt. % was coated on the base and the coated sheet was air dried for 10 min. and cured at 275.degree.F. for 30 min. A 0.046-in. cellulosic felt sheet was impregnated with 10% poly(vinyl acetate) and 30% of a petroleum resin and was then coated with a coating comprising a vinyl chloride-di-Bu maleate latex (50% solids) 30, a butadiene-acrylonitrile copolymer latex (50% solids) 30, a Na alkylarenesulfonate 2, TiO2 14, whiting 54, a Me cellulose suspension (7% solids) 15, and H2O 20 parts. After heating at 115.degree. for 100 min., the coated felt was coated with an adhesive comprising a vinyl chloride-vinyl acetate copolymer modified with 1% maleic anhydride 10, an acrylonitrile-butadiene copolymer 10, MeCOEt 60, and iso-BuCOMe 20 parts. The coated felt was heated to 400.degree.F. and was passed through cold laminating rolls at 60.degree.F. simultaneously with the embossed coated film and with the embossed laminated in contact with the adhesive coating. The				

laminates thus produced can be used as floor, counter, or wall coverings.

=> d his

(FILE 'HOME' ENTERED AT 13:29:45 ON 20 MAY 2002)

FILE 'CAPLUS' ENTERED AT 13:30:17 ON 20 MAY 2002

L1 88344 S LAMINATE
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L3 523 S (FIBERGLASS OR FIBREGLASS OR FIBER GLASS OR FIBRE GLASS) (L) LA
L4 18089 S CELLULOSE(L) LAYER
L5 463 S (FIBREBOARD OR FIBERBOARD OR FIBRE BOARD OR FIBER BOARD) (L) LA
L6 35508 S (POLYOLEFIN OR POLYESTER) (L) LAYER
L7 0 S L2 AND L3 AND L4
L8 1772 S L1 AND L2
L9 3 S L8 AND L3
L10 25 S L8 AND L4
L11 187 S L8 AND L6
L12 4 S L10 AND L11
L13 130 S L11 AND PY<=1997

=> s 12 and 13 and 15

L14 0 L2 AND L3 AND L5

=> log y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	58.16	58.37
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-4.34	-4.34

STN INTERNATIONAL LOGOFF AT 13:39:56 ON 20 MAY 2002

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

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FILE COVERS 1907 - 21 May 2002 VOL 136 ISS 21

FILE LAST UPDATED: 19 May 2002 (20020519/ED)

This file contains CAS Registry Numbers for easy and accurate

substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> s laminat? or layer?

145680 LAMINAT?

1201912 LAYER?

L1 1281429 LAMINAT? OR LAYER?

=> s foam? or polyurethane? or polystyrene?

115818 FOAM?

108670 POLYURETHANE?

117894 POLYSTYRENE?

L2 305777 FOAM? OR POLYURETHANE? OR POLYSTYRENE?

=> s woven or non-woven or unwoven

17237 WOVEN

74 WOVENS

17289 WOVEN

(WOVEN OR WOVENS)

535364 NON

30 NONS

535388 NON

(NON OR NONS)

17237 WOVEN

74 WOVENS

17289 WOVEN

(WOVEN OR WOVENS)

1772 NON-WOVEN

(NON(W)WOVEN)

937 UNWOVEN

L3 18130 WOVEN OR NON-WOVEN OR UNWOVEN

=> s fiberglass or fibreglass or fiber-glass or fibre-glass

2727 FIBERGLASS

5 FIBERGLASSES

2728 FIBERGLASS

(FIBERGLASS OR FIBERGLASSES)

7 FIBREGLASS

414404 FIBER

437241 FIBERS

569195 FIBER

(FIBER OR FIBERS)

575144 GLASS

106545 GLASSES

599821 GLASS

(GLASS OR GLASSES)

6880 FIBER-GLASS

(FIBER(W)GLASS)

1812 FIBRE

1300 FIBRES

3001 FIBRE

(FIBRE OR FIBRES)

575144 GLASS

106545 GLASSES

599821 GLASS

(GLASS OR GLASSES)

2 FIBRE-GLASS

(FIBRE(W)GLASS)

L4 9227 FIBERGLASS OR FIBREGLASS OR FIBER-GLASS OR FIBRE-GLASS

=> s cellulos? or resin?

304396 CELLULOS?

607665 RESIN?

L5 888574 CELLULOS? OR RESIN?

=> s l1 and l2 and l3 and l4 and l5

L6 9 L1 AND L2 AND L3 AND L4 AND L5

=> d scan

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS

IC B32B; B41K

NCL 161093000

CC 37 (Plastics Fabrication and Uses)

TI Impact-resistant **laminated** sheet

ST epoxy **resin polyurethane laminates**; plastic
laminates bulletproof; polyester **polyurethanes**
laminates; impact strength **laminates**

IT Projectiles

(ballistic, impact-resistant plastic **laminates** for)

IT Urethane polymers, uses and miscellaneous

RL: TEM (Technical or engineered material use); USES (Uses)

(cellular, **laminates** with epoxy **resins** reinforced

with glass fabric, impact-resistant)

IT **Fiber, glass**, uses and miscellaneous

RL: USES (Uses)

(fabric, plastics reinforced with, impact-resistant)

IT **Resins**, epoxy, uses and miscellaneous

RL: USES (Uses)

(**laminates**, with urethane polymers reinforced with glass
fabric)

IT Polyesters, uses and miscellaneous

RL: USES (Uses)

(**laminates**, with urethane polymers reinforced with glass
fabric, impact-resistant)

IT 9003-18-3, uses and miscellaneous

RL: USES (Uses)

(epoxy **resin**-urethane polymer **laminates** contg.,
reinforced with glass fabric)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS

CC 31 (Synthetic Resins and Plastics)

TI **Laminated** denture

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS

IC B32B; C01B; F16N

CC 39 (Textiles)

TI Deposition of carbon fibers perpendicular to the surface of fabrics and
films

ST carbon fibers deposition; fibers carbon deposition

IT Nylon, uses and miscellaneous

RL: USES (Uses)

(carbon fiber perpendicular deposition on fabrics of 6)

IT Plastics

RL: USES (Uses)

(carbon fiber perpendicular deposition on sheets of)

IT Fiber, synthetic

RL: USES (Uses)

(carbon, perpendicular deposition of, on sheet materials)
 IT **Fiber, glass, uses and miscellaneous**
 RL: USES (Uses)
 (fabric, carbon fiber perpendicular deposition on)
 IT Adhesives, uses and miscellaneous
 (for carbon fiber perpendicular deposition on sheet materials)
 IT 7440-44-0, uses and miscellaneous
 RL: USES (Uses)
 (fiber, perpendicular deposition of, on sheet materials)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS
 IC ICM E04H015-54
 ICS B32B015-08; B32B033-00; E04B001-74; D06M011-83
 CC 58-6 (Cement, Concrete, and Related Building Materials)
 Section cross-reference(s): 38
 TI Sound-insulating polymer-coated fabric in control of interior environments
 ST composite polymer glass fiber fabric sound thermal insulator
 IT Glass fibers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (ECG150 4/2, fabric; sound-insulating polymer-coated fabric in control
 of interior environments)
 IT Polysiloxanes, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (Me Ph, ET-4327, from Dow Corning; sound-insulating polymer-coated
 fabric in control of interior environments)
 IT Membranes, nonbiological
 (composite, polymer-coated fabric; sound-insulating polymer-coated
 fabric in control of interior environments)
 IT Yarns
 (defining an open area of .apprx.30-50%; sound-insulating
 polymer-coated fabric in control of interior environments)
 IT **Polyurethanes, uses**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (elastomeric fiber; sound-insulating polymer-coated fabric in control
 of interior environments)
 IT Carbon fibers, uses
 Polyesters, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (fibrous material; sound-insulating polymer-coated fabric in control of
 interior environments)
 IT Fluoropolymers, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (polymer deposition **layer**; sound-insulating polymer-coated
 fabric in control of interior environments)
 IT Fluoropolymers, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (polymer deposition **layer**; sound-insulating polymer-coated
 fabric in control of interior environments)
 IT Nonwoven fabrics
 (polymer-coated; sound-insulating polymer-coated fabric in control of
 interior environments)
 IT Glass fiber fabrics
 RL: EPR (Engineering process); PEP (Physical, engineering or chemical
 process); PROC (Process)
 (polymer-coated; sound-insulating polymer-coated fabric in control of
 interior environments)
 IT Heat
 (radiant, radiant heat control; sound-insulating polymer-coated fabric
 in control of interior environments)
 IT Fluoropolymers, uses
 RL: MOA (Modifier or additive use); USES (Uses)

(**resins**, polymer deposition **layer**; sound-insulating polymer-coated fabric in control of interior environments)

IT Thermal insulators
(sound-insulating, polymer-coated fabric; sound-insulating polymer-coated fabric in control of interior environments)

IT Sound insulators
(thermally insulating, polymer-coated fabric; sound-insulating polymer-coated fabric in control of interior environments)

IT 24938-60-1, Poly-(m-phenyleneisophthalamide) 24938-64-5, Poly-(p-phenyleneterephthalamide)
RL: TEM (Technical or engineered material use); USES (Uses)
(fibrous material; sound-insulating polymer-coated fabric in control of interior environments)

IT 7429-90-5, Aluminum, uses 7439-92-1, Lead, uses 7439-98-7, Molybdenum, uses 7440-02-0, Nickel, uses 7440-06-4, Platinum, uses 7440-16-6, Rhodium, uses 7440-22-4, Silver, uses 7440-25-7, Tantalum, uses 7440-33-7, Tungsten, uses 7440-50-8, Copper, uses 7440-56-4, Germanium, uses 7440-57-5, Gold, uses 11121-90-7, Carbon steel, uses 12597-68-1, Stainless steel, uses 12597-71-6D, Brass, chrome brass, uses 12606-02-9, Inconel 50926-11-9, Indium tin oxide
RL: MOA (Modifier or additive use); USES (Uses)
(low emissivity **layer**; sound-insulating polymer-coated fabric in control of interior environments)

IT 9002-83-9, Polychlorotrifluoroethylene 9002-86-2, Polyvinyl chloride 9002-89-5, Polyvinyl alcohol 13269-86-8D, ether 24937-79-9, Polyvinylidene fluoride 24981-14-4, Polyvinyl fluoride 25038-71-5 25067-11-2 25101-45-5 381213-52-1, Teflon FEP-T 121A
RL: MOA (Modifier or additive use); USES (Uses)
(polymer deposition **layer**; sound-insulating polymer-coated fabric in control of interior environments)

IT 9002-84-0, Fluon AD 1H
RL: TEM (Technical or engineered material use); USES (Uses)
(polymer deposition **layer**; sound-insulating polymer-coated fabric in control of interior environments)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS
IC B32B; C09J
NCL 156155000
CC 37 (Plastics Fabrication and Uses)
TI Reinforced **resin** panel using a soluble cover sheet
ST reinforced **resin** panels; structural **laminated** panels;
laminated structural panels; thermal insulation panels
IT **Fiber, glass**, uses and miscellaneous
RL: USES (Uses)
(fabric, thermally insulating **laminated** building panels contg., sol. cover sheet in manuf. of)

IT Thermal insulators
(**laminated** plastic building panels, sol. cover sheet in manuf. of)

IT Building materials
(**laminated** plastic panels, sol. cover sheet in manuf. of)

IT Plastics, **laminated**
RL: USES (Uses)
(thermally insulating building panels, **resin**-sol. cover sheet in manuf. of)

IT Polyesters, uses and miscellaneous
RL: USES (Uses)
(thermally insulating **laminated** building panels contg., sol. cover sheet in manuf. of)

IT 9003-53-6, uses and miscellaneous
RL: USES (Uses)

(thermally insulating **laminated** building panels contg., sol.
cover sheet in manuf. of)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS
CC 37-3 (Plastics Fabrication and Uses)
TI Development of fire-resistant, low smoke generating, thermally stable end
items for commercial aircraft and spacecraft using a basic polyimide
resin
ST polyimide **foam** fire resistance; aircraft seating polyimide
foam; spacecraft upholstery polyimide **foam**; glass fiber
polyimide **foam laminate**; microwave heating
foaming polyimide; ceramic fiber fireproofing polyimide
IT Upholstery
(cellular polyimides contg. ceramic fibers, fire-resistant, for air-
and spacecraft seating)
IT Polyimides, uses and miscellaneous
RL: TEM (Technical or engineered material use); USES (Uses)
(cellular, contg. ceramic **fibers, glass**
fiber-reinforced **laminates**, for fire-resistant air- and
spacecraft seating)
IT Fireproofing agents
(ceramic fibers, for polyimide **foam** for air- and spacecraft
seating)
IT Microwave, chemical and physical effects
(heating by, in **foaming** of polyimides)
IT Molding of plastics and rubbers
(of polyimide **foams** contg. ceramic fibers, for air- and
space-craft seating)
IT Glass fibers, uses and miscellaneous
RL: USES (Uses)
(polyimide **foams** reinforced by, fire-resistant, for air- and
spacecraft seating)
IT Aircraft
Space vehicles
(seating for, fire-resistant polyimide **foam** for)
IT Smoke
(suppression of, in polyimide **foam** seating for aircraft)
IT Fire-resistant materials
(fibers, cellular polyimides contg. ceramic, for air and spacecraft
seating)
IT Ceramic materials and wares
RL: USES (Uses)
(fibers, polyimide **foams** contg., fire-resistant, for air-and
spacecraft seating)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L6 9 ANSWERS CAPLUS COPYRIGHT 2002 ACS
IC B29C; B32B
NCL 161093000
CC 36 (Plastics Manufacture and Processing)
TI Glass-fiber-reinforced **polystyrene**
ST **polystyrene** glass fiber reinforced; glass fiber reinforced
polystyrene; laminates flexural strength; flexural
strength **laminates**
IT **Fiber, glass**, uses and miscellaneous
RL: USES (Uses)
(fabric, styrene polymers reinforced by siloxane-treated)
IT Siloxanes, uses and miscellaneous
RL: USES (Uses)
(glass fabric treated with, styrene polymers reinforced by)

IT 1067-53-4 2530-83-8 2530-85-0 3388-04-3
 RL: USES (Uses)
 (glass fabric treated with, styrene polymers reinforced by)
 IT 9003-53-6, uses and miscellaneous
 RL: USES (Uses)
 (reinforced by glass fabric treated with siloxanes)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> d 1-9 bib,abs

L6 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS
 AN 2001:924073 CAPLUS
 DN 136:57761
 TI Sound-insulating polymer-coated fabric in control of interior environments
 IN Sahlin, Katherine M.; Effenberger, John A.
 PA Saint-Gobain Performance Plastics Corporation, USA
 SO PCT Int. Appl., 32 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001096695	A1	20011220	WO 2001-US40989	20010614
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2000-211882P	P	20000615		
AB	The flexible composite membrane for sound insulation, light transmission and radiant heat control. The composite membrane comprises a flexible fibrous reinforcement layer , a polymer deposition layer covering the reinforcement layer , and a low emissivity layer adhered to the polymer deposition layer . The reinforcement layer comprises a fibrous material having yarns defining an open area of .apprx.30-50%. The flexible reinforcement layer comprises a material selected from poly-(m-phenyleneisophthalamide), poly-(p-phenyleneterephthalamide), polyurethane elastomeric fiber, polyalkylene, polyamide, polyester, glass fiber, carbon fiber, and a blend thereof. The flexible reinforcement layer may comprise a fabric of woven fiberglass , a nonwoven fabric, a perforated film, or a multiple strata. The polymer deposition layer 10-50 .mu.m thick comprises a fluoropolymer selected from polytetrafluoroethylene (PTFE), fluorinated ethylene propylene copolymer (FEP), perfluoroalkoxy resin (PFA), polyperfluorovinyl ether, polychlorotrifluoroethylene (CTFE), polyvinylidene fluoride (VF2), polyethylenchlorotrifluoroethylene (ECTFE), polyethylenetetrafluoroethylene (ETFE), polyvinyl fluoride (PVF), and blends thereof. The polymer deposition layer comprises a polymer selected from polyvinyl chloride (PVC), polyvinyl alc. (PVA) and blends thereof. The low emissivity layer comprises a low emissivity material selected from Al, Au, indium tin oxide, chrome brass, mild steel, stainless steel, Inconel, Cu, Ni, Pb, Pt, Ag, Ta, W, Ge, Mo, Rh, and alloys thereof.				

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS
 AN 1980:569262 CAPLUS
 DN 93:169262
 TI Development of fire-resistant, low smoke generating, thermally stable end items for commercial aircraft and spacecraft using a basic polyimide **resin**
 AU Gagliani, J.; Lee, R.; Sorathia, U. A. K.; Wilcoxson, A. L.
 CS Sol. Turbines Int., San Diego, CA, USA
 SO NASA [Contract. Rep.] CR (1980), NASA-CR-160576, SR79-R-4674-38, 176 pp. Avail.: NTIS
 From: Sci. Tech. Aerosp. Rep. 1980, 18(13), Abstr. No. N80-22492
 CODEN: NSCRAQ; ISSN: 0565-7059
 DT Report
 LA English
 AB A terpolyimide precursor **foamable** by microwave methods was developed and gave **foams** possessing superior seating properties. A continuous process, based on spray-drying techniques, permitted prodn. of polyimide powder precursors in large quantities. The constrained-rise **foaming** process permitted fabrication of rigid **foam** panels with improved mech. properties and almost unlimited d. characteristics. Polyimide **foam** core rigid panels were produced by the technique with **woven** glass fiber fabric bonded to each side of the panel in a 1-step microwave process. The fire resistance of polyimide **foams** was improved by addn. of ceramic fibers to the powder precursors. **Foams** produced from the compns. were flexible, possessed good acoustical attenuation, and met the min. burnthrough requirements when impinged by high flux flame sources.

L6 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS
 AN 1971:127025 CAPLUS
 DN 74:127025
 TI Improved **foamed-core laminates**
 PA Larson Industries Inc.
 SO Brit., 6 pp.
 CODEN: BRXXAA
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	GB 1221267		19710203		
PRAI	US		19680520		
AB	<p>The inner reinforced polyester skin or shell of foam-core laminates which are used in the manuf. of boats was firmly bonded to the core by applying a thin coating of polyester resin over the foam before hardening. A polyester gel was applied to the inner surface of a hull mold, a layer of glass reinforced polyester was applied over the gel, a woven fiberglass mat, satd. with a polyester resin was applied over the previous layer, 4 successive layers of polyurethane foam were applied by spraying, a thin layer of polyester resin was applied over the last layer of polyurethane, the composite allowed to harden, a layer of nonwoven glass fibers satd. with polyesters applied, the composite aged at room temp., and the hull was converted by conventional methods to a boat with good performance characteristics.</p>				

L6 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS
 AN 1971:127012 CAPLUS
 DN 74:127012
 TI Impact-resistant **laminated sheet**
 IN Windecker, Leo J.
 PA Dow Chemical Co.

SO U.S., 3 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3567568	A	19710302	US 1967-671791	19670929
AB	Impact resistant laminates are prepd. by impregnating woven glass cloth with a resin , i.e. a bisphenol A-epichlorohydrin epoxy or polyester resin , curing the resin , and then bonding the resin -glass cloth composites to polyurethane foam which had been impregnated with an epoxy resin and acrylonitrile-butadiene copolymer mixt. A 5- layer sandwich having outer layers and a central layer of glass fiber-reinforced epoxy resin and 2 intermediate layers of the epoxy-rubber-impregnated polyurethane foam had, after curing for 48 hr at 125.degree., good impact resistance and effectively stopped ballistic projectiles without significant damage to the sheet.				

L6 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS
AN 1970:122805 CAPLUS
DN 72:122805
TI Deposition of carbon fibers perpendicular to the surface of fabrics and films
PA Courtaulds Ltd.
SO Fr. Demande, 7 pp.
CODEN: FRXXBL

DT Patent
LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2002722		19691031		
PRAI	GB		19680227		
AB	Carbon filaments are made by pyrolyzing org. filaments (e.g. polyacrylonitrile) at 200-300.degree. in an oxidizing atm., then at > 1000.degree. (or > 2000.degree. to obtain a graphitized product) in an inert atm. They are then cut into uniform short lengths (0.5-5 mm) and are deposited on a substrate by high-voltage electrostatic deposition so as to be perp endicular to the substrate surface; a binder retains them in position. The substrate may be a woven or knitted fabric (glass fiber, cotton, nylon, polyester, polyacrylonitrile, viscose) or a polymer film. The binder may be an adhesive (a polyurethane or a dispersion of one or more polyacrylic esters) or a thermally hardenable resin coating on the substrate. Either substrate or binder coating may be elec. conducting to confer antistatic properties, while the carbon fibers confer self-lubrication and mech. resistance. Thus, a glass fiber or nylon 6 fabric is coated with a thin layer of adhesive (Primal K 14, C. Lennig), and coated with perpendicularly oriented 2.5-mm carbon fibers by electrostatic deposition. After deposition of sufficient carbon, the adhesive is dried.				

L6 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS
AN 1970:44701 CAPLUS
DN 72:44701
TI Reinforced **resin** panel using a soluble cover sheet
IN Morse, Donald B.; Menzer, Alfred B.
PA Kemlite Corp.
SO U.S., 7 pp.
CODEN: USXXAM
DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3480497	A	19691125	US 1967-626270	19670327
AB	<p>Laminates are prepd. by impregnating a fibrous sheet with a thermosetting resin, and placing a protective, resin-sol. film over the impregnated sheet, then passing the article between rolls before the film dissolves in the resin, optionally pressing it to the surface of another body, and curing the article. Thus, face sheets were formed by passing 2 plies of glass fabric through a bath contg. an acrylic resin, a catalyst, and 5% TiO₂. The squeeze roll setting was 0.045 in., and the sheets were cut and placed in the halves of a mold; a rigid polyurethane foam core (d. 2.5 lb/ft³, 3 in. thick) was placed on top of 1 sheet. The second face sheet was placed on the male part of the mold, and clamped to it along the edges, and that mold part was inverted and placed on top of the core and 3 in. \times 1 in. rectangular polyester resin-glass cloth tubes formed the end closures. The hinged side rails of the mold were raised to contact the bottom sheet, core, and upper sheet edges, to a thickness of \approx 1/8 in.; the composite was then molded at 40 lb/ft² and 140.degree.F for 2 hr. The flange was trimmed to within 1/4 in. of the face. The panel, 4 ft wide \times 8 ft long, had insulating properties and structural strength suitable for wall or ceiling refrigeration panels. By the same process a glass fiber mat was impregnated with a 3:1:1 polyester resin-styrene-Me methacrylate mixt., contacted with a regenerated cellulose film, squeezed, cut into sheets, between which a honeycombed kraft paper, 15% satd. with a phenolic resin, and cured to be stiff and moisture resistant was pressed, using Al channel end closures, at 150-250.degree.F for 30-90 min, to give a structurally strong panel. A panel used for decking or facing concrete formwork was made from a woven glass fiber roving, impregnated with a 5:4:1 epoxy resin-amine hardener-styrene oxide mixt., top sheets of which were covered with polystyrene and the bottom with Mylar, and bonded to a chipboard core through thermal pressing; a sheet similar to the original was placed over the surface of a corrugated sheet iron with the tacky side next to the iron, and the regenerated cellulose on the top side, then pressed towards the corrugated iron to get a firm uniform contact, and cured. After curing, the regenerated cellulose film was removed, leaving a durable attractive finish.</p>				

L6 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS

AN 1969:413797 CAPLUS

DN 71:13797

TI Glass-fiber-reinforced **polystyrene**

IN Sterman, Samuel; Marsden, James G.

PA Union Carbide Corp.

SO U.S., 3 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3441466	A	19690429	US 1966-523879	19660201
	AT 278467	B	19700210	AT 1967-860	19670130
PRAI	US 1966-523879		19660201		
AB	<p>Glass cloth is treated with organofunctional alkyltrialkoxysilanes or their hydrolyzates (silicones), and impregnated with polystyrene (I) to give glass-reinforced I materials that have greater flexural strength than those prepd. from untreated glass. For example, γ-methacryloyloxypropyl(trimethoxy)silane in water (adjusted to pH</p>				

3.5-5 with AcOH) was stirred until hydrolysis was complete. **Woven** glass fabric was passed through the soln. (50 wt. % pickup), dried at room temp., cured at 135.degree. for 2.5 min. (0.5% wt. gain), and impregnated with a soln. of 25 wt. % I in toluene. The impregnated fabric was dried at room temp., heated 1.5 hrs. at 135.degree., and 11 plies of the resulting 4:1 **resin**-glass composite were pressed together 20 min. at 177.degree. to give a **laminate** 0.125 in. thick, 40 wt. % **resin**, flexural strength 48,400 psi. A similar **laminate** prepd. from glass cloth treated with .beta.-(3,4-epoxycyclohexyl)ethyl(trimethoxy)silane had flexural strength 48,800 psi. Similar **laminates** prepd. from untreated fibers and fibers treated with .gamma.-glycidoxypropyl(trimethoxy)silane and vinyltris(.beta.-methoxyethoxy)silane, had flexural strengths 24,400, 28,600, and 27,500 psi., resp.

L6 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS
 AN 1966:76507 CAPLUS
 DN 64:76507
 OREF 64:14371g-h
 TI Epoxy **resin** compositions
 IN Holm, Roy T.; Williams, Paul H.
 PA Shell Oil Co.
 SO 7 pp.; Continuation-in-part of U.S. 3,116,301 (CA 60, 10653c)
 DT Patent
 LA Unavailable
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 3232901		19660201	US	19620604
AB	<p>The title resins have low viscosity and thus are easily processed. They are made from a poly-epoxide with >1 vic-epoxy group and a compd. contg. .ltoreq.1 ethylenic group and .ltoreq.1 oxirane, thiirane, or aziridine group, e.g. glycidyl 3,4-dihydro-1,2-pyran-2-carboxylate (I) or 3,4-dihydro-1,2-pyran-2-methyl glycidyl ether, whose manuf. is described in U.S. 3,116,301 (loc. cit.). Thus, 28 parts I was mixed with 72 parts glycidyl polyether of 2,2-bis(4-hydroxyphenyl)propane and 14.15 parts m-phenylenediamine was added. After 8 hrs., the viscosity had increased from 8 to 13 poises at 25.degree.. Cast sheets cured 2 hrs. at 100.degree. and 4 hrs. at 150.degree. had a tensile strength of 13,600 psi. and 4.93% elongation, heat-distortion temp. 156.degree., and Izod impact resistance of 0.51 ft.-lb./in. After 20 hrs. at 150.degree. the heat-distortion temp. was 182.degree.. These resins make excellent coating and potting compds., foams, adhesives, etc., and impregnate woven or felted fiber glass sheets to yield laminates of high temp. and H2O resistance.</p>				

L6 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS
 AN 1947:24819 CAPLUS
 DN 41:24819
 OREF 41:4965g-i,4966a
 TI **Laminated** denture
 IN Harris, La Mar W.; Colton, Lloyd W.
 DT Patent
 LA Unavailable
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2418833		19470415	US	
AB	<p>A laminated denture having improved resistance to water absorption and greater tensile strength and dimensional stability is prepd. by using polymethylmethacrylate (I) modified with styrene and reinforcing the polymer mass with fibrous material (II). Fiber glass cloth (III) is preferred for Class II, but other reinforcing</p>				

materials, such as duck fabric or light wt. stainless alloys in either sheet or **woven** fabric form may be used. If III is used, it is first impregnated with 25-35% (vol.) of vinyl-butyral **resin** preferably modified with 17-70% of a phenol-HCHO **resin** to give a **resinous** mixt. which is thermosetting. The denture consists of a **laminat**e of III impregnated as noted above, between a **layer** of methyl methacrylate (1 part monomer and 3-4 parts of polymer) on the exposed side, and a **layer** of 1 part of a 4/1 mixt. of monomeric styrene-monomeric methyl methacrylate, and 4 parts of powd. I on the tissue side. The **laminat**e is cured in a suitable mold either by (1) heating at a rate of 2.degree. per min. to 210.degree.F. and holding at 212.degree.F. for 45 min. or (2) by preheating at 160.degree.F. for 3 hrs. and then heating at 212.degree.F. for 45 min. The cured **laminat**e has a shear strength of 8450 lb. per sq. in. and an Izod impact strength of 5.49 ft. lb. per sq. in. notch as compared with **polystyrene** which has a shear strength of 6540 lb. per sq. in. and an Izod impact strength of 0.3-0.5 ft. lb. per sq. in. notch.

=> d his

(FILE 'HOME' ENTERED AT 09:01:54 ON 21 MAY 2002)

FILE 'CAPLUS' ENTERED AT 09:02:31 ON 21 MAY 2002

```
L1      1281429 S LAMINAT? OR LAYER?
L2      305777 S FOAM? OR POLYURETHANE? OR POLYSTYRENE?
L3      18130 S WOVEN OR NON-WOVEN OR UNWOVEN
L4      9227 S FIBERGLASS OR FIBREGLASS OR FIBER-GLASS OR FIBRE-GLASS
L5      888574 S CELLULOS? OR RESIN?
L6      9 S L1 AND L2 AND L3 AND L4 AND L5
```

=> s wind? or load?

102572 WIND?

271720 LOAD?

L7 371845 WIND? OR LOAD?

=> s l6 and l7

L8 0 L6 AND L7

=> s wall

211409 WALL

103522 WALLS

L9 279420 WALL

(WALL OR WALLS)

=> l9 and l7

L9 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.

For a list of commands available to you in the current file, enter

"HELP COMMANDS" at an arrow prompt (=>).

=> d his

(FILE 'HOME' ENTERED AT 09:01:54 ON 21 MAY 2002)

FILE 'CAPLUS' ENTERED AT 09:02:31 ON 21 MAY 2002

```
L1      1281429 S LAMINAT? OR LAYER?
L2      305777 S FOAM? OR POLYURETHANE? OR POLYSTYRENE?
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L5      888574 S CELLULOS? OR RESIN?
L6      9 S L1 AND L2 AND L3 AND L4 AND L5
```

L7 371845 S WIND? OR LOAD?
L8 0 S L6 AND L7
L9 279420 S WALL

=> s 17 and 19

L10 10365 L7 AND L9

=> s 110 and 16

L11 0 L10 AND L6

=> s 110 and 12 and 13 and 14 and 15

L12 0 L10 AND L2 AND L3 AND L4 AND L5

=> log y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

65.82

66.03

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-5.58

-5.58

STN INTERNATIONAL LOGOFF AT 09:21:55 ON 21 MAY 2002